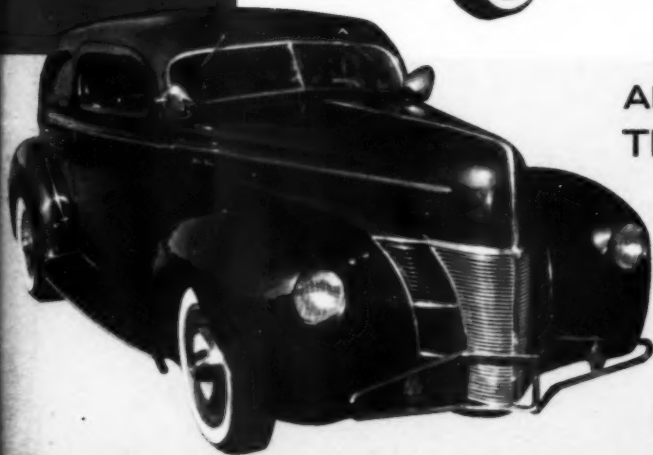


ROD & *Custom*

**FULL STORY
ON
CHOPPED
TOPS!**

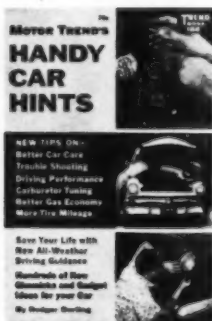
Coupes
Sedans
Hardtops
Pickups



Also:
The year's
10
**BEST
HOT
RODS**

THESE FINE TREND BOOKS ARE...

TOPS IN AUTOMOTIVE READING!

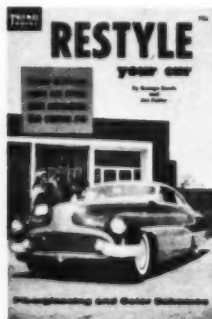


HANDY CAR HINTS

A trouble-shooter par excellence — filled with fresh, practical answers to universal automotive problems. Designed to aid the everyday driver, it covers utilization of car space, hot and cold weather driving, gas and oil, tires and tubes, lights and sight, the engine, the body — inside and outside, safety driving, family driving — with emphasis on comfort and conveniences like pet carriers, etc., garage and driveway accessories and storage tips, and highway driving.

1958 CARS OF THE WORLD

This popular annual presents a parade of the new cars produced the world over. It's a complete guide to every production car built for 1958, containing photos, specifications and prices on over 200 models from all nations. This year's edition highlights a new special feature: a group of outstanding articles on the most revolutionary automotive developments of our day, such as air suspension, torsion bars, fuel injection, etc. Many road tests.



RESTYLE YOUR CAR

Here are all the facts on how to restyle your car and save money, too. The most complete guide on customizing ever published; it tells and shows with hundreds of photos how to go about the customizing process you select. Covers costs and styles; home customizing; all about striping; how to save time and money by using the new fiberglass plastics; how to select your color schemes. A treasury of offbeat customizing ideas.

75¢ EACH AT YOUR NEWSSTAND NOW!

Or send 85¢ (to cover postage etc.) to:

TREND BOOKS

3939 Hollywood Blvd., Los Angeles 28, Calif.



NEW!

George Barris

KOLOR KROME

Spray Bombs



The distinctive, expensive look that only colored chrome gives your custom job can now be yours with the amazing, new KOLOR KROME. Your car can have the same glamorous appearance that today's trophy winners have, who also use KOLOR KROME.

This unique product is sufficiently transparent to let the deep down sparkle of your chrome come through in brilliant color. It is ideal for hub caps, grilles, side chrome, engine parts, or any mirror-like surface. The convenient 16-oz. pressurized can gives you a fine, controlled spray of dazzling color with just a touch of the finger.

KOLOR KROME is available in four quick-drying colors: Pagan Gold, Candy Apple Red, Oriental Blue, and Parisian Green. Unlimited designs and combinations are possible to give your car the eye-

stopping George Barris customized look.

You have both seen and read about this newest of new products in the October, 1957 CAR CRAFT, February, 1958 MOTOR LIFE, and May, 1958 ROD and CUSTOM magazines... and now it can be yours to help you have the most complete job of customizing ever.

Best of all, KOLOR KROME may be quickly removed should you wish to return to original chrome or change the color. Yet, it is as resistant to weather and road damage as the paint on your car.

It's inexpensive, too! A 16-oz. can of KOLOR KROME is only \$2.98, and one can is sufficient for the average car. See your local dealer today, or if he is out of stock, send your check or money order direct to the factory and the colors of your choice will be rushed to you postpaid.



"Don't do half the job... use KOLOR KROME"

CALIFORNIA CUSTOM ACCESSORIES MFG. CO.

1807 West 85th Street, RC-8, Los Angeles 47, California

**AUGUST
1958**

In this month's

ROD & Custom

ROBERT E. PETERSEN
SPENCER MURRAY
LYNN WINELAND
A. M. BENEDICT
W. C. KINS

publisher
editor
graphics ed.
advertising dir.
advertising man.

FEATURES



Author/photographer Jim Potter has looked over the field and selected what he feels are ...

THE YEAR'S 10 BEST RODS 12

The most space we've ever devoted to a single subject takes up a full 20 pages to explain ...

TOP CHOPPING 28

Roger Huntington goes to great lengths in explaining how anyone can go at the salt ...

YOU CAN CRACK BONNEVILLE 34

DON'T MISS...

NONCONFORMITY SPOKEN HERE, Laugh with Carl Kohler 22

THE DAZZLER, Customizing at a new peak 26

FURY-IZED FORD, Plymouth powered 48

CONTINUED FROM LAST MONTH

CUSTOMIZING FOR SPEED AND STABILITY 50

MORE GO FOR THE KART 58

REGULAR DEPARTMENTS

the starting line 6

our readers write — or wrong 8

automart 10

arin-see 62

backpressure 66

Published monthly by Quinn Publications, Inc., 5959 Hollywood Blvd., Los Angeles 28, Calif. Second-class mail privileges authorized at Los Angeles, California under the Act of March 3, 1897. Reprinting in whole or part forbidden except by permission of the publishers. Copyright 1958 by Quinn Publications, Inc. Subscription Price: \$3.00 per year throughout the world. Single copy 25 cents. Eastern Advertising: 17 East 48th St., N. Y. C. Detroit Advertising: 524 Book Bldg., Detroit 26, Mich. Midwest Advertising: 360 N. Michigan Ave., Chicago 1, Ill.

**little brother
is watching**

Not even this group of club members on a Sunday's outing could escape the watchful eye of Rod & Custom. Wherever and whenever there's automotive activity, the Man From R & C will be lurking nearby. He's searching for things that will interest you — the R & C reader. Be it a custom show in Connecticut, drags in Oklahoma, or a 100 mile kart race in California, you can bet the ever-watching R & C camera will be doing its job — just for you.

another case of...

DOING with Rod & Custom SUBSCRIBE TODAY

rod and custom magazine 5959 Hollywood Blvd., Los Angeles 28, Calif.

Hurry and send me Rod & Custom Magazine for the next

☐ 12 months @ \$3.00

☐ 24 months @ \$5.00

I'm enclosing

☐ Cash

☐ Check

☐ Money order

Name

Address

City

Zone

State

the starting line



LATECOMERS to the science of automotive customizing have been wondering about the complexities they'll meet when they undertake the restyling of their car's original shape by dropping the roof line—more commonly known as top chopping. Well, never content to permit such interesting queries to lie around our offices very long unanswered, we hustled out and rounded up so much chopping material that it takes a full *twenty* of the pages in this edition to reveal just what mysteries await the eager turret hacker.

But there is really quite a bit more behind this top chopping sequence than meets the eye. In our own admittedly underhanded way we are hoping to interest both the older customizers as well as the younger up-and-coming restylers in proceeding with more radical metalwork than is currently being done. A quick summation of all the customs studied at recent car shows across the land makes it evident that the trend is toward less radical metalwork, with emphasis being placed more and more on such trivia as astonishing paint treatments, Hi-Fi sets in glove boxes, rear seat TV, and so forth. *This is customizing???*

Popular humor-writer Carl Kohler has answered our plea to help emphasize our complaints by whipping up a piece on non-conformity. And this he has done, the result closely preceding top chopping.

Of course, all of this is intended to fire you up to the point where you'll admit that radical paint does not a custom make, or that dice dangling from a rear vision mirror aren't the true enthusiast's idea of a fully customized interior.

I think a lot of the trouble lies in the fact that more and more guys are spending their loot to buy as late a model car as they can afford which, obviously, leaves nothing left over for rework. It used to be that about half of what the purse contained went for the chariot, the other half was gladly given to the closest body working emporium. Now probably 95% of that hard earned green stuff reaches the hands of Mr. New Car Dealer while the remaining 5% goes into the till of service stations. Come on now, we used to settle for radically reworked but older cars. Has that era disappeared? ●

No
R

BRING
Here at last
lams... a
right on you
on bumpers
and sparkle
make your
PLATER you
ing you ap
metal you
ing, metal

BUMPER
RES

Here is ho
clamp SPEE
SPEEDPLA
plate anyo
parts. Soft
very juic

MAKE B

Now you can
ing spec-
of 10 cars on
PLATING. You
touching-up to
entire car.
Plating is
out of taking
and bringing
own. When a
plating on you
do the job in
And you o
profit, too...
want, color
first' lastness
relations of
relations to
dism. There's
complete w
THING for p
Gutler!

Major B

Now you can
mounting to
card lastness
durable. We
standard 12
brush with
buffing We
more old
chrome of
thrust your
GUARANTEE

CASH

AUGU

Now-AMAZING NEW SPEED PLATER REPLATES AUTO CHROME

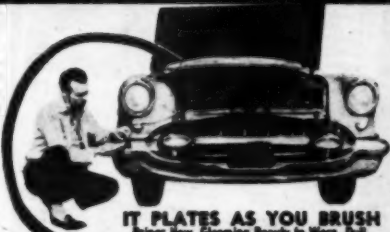
right on YOUR CAR
with PERMANENT PLATING!

BRING BACK NEW-CAR BRILLIANCE

Here at last is the car-owner's answer to all chrome problems... a way that you can do actual **ELECTROPLATING** right on your own car. You put a brand-new, shiny plating on bumpers, grills, all auto trim. You bring back new beauty and sparkle to your car... **INCREASE ITS VALUE**... make yourself proud to own and drive it. With **SPEED-PLATER** you put on new metal as you brush! And the plating you apply, becomes an **INDESTRUCTIBLE PART** of the metal you plate... bonds itself on — forms a hard, sparkling, metal surface that defies all elements!

BUMPERS - GRILLWORK - ALL CAR TRIM RESTORED TO NEW BRILLIANCE

Here is how easily you **REPLATE** your car... you simply clamp **SPEEDPLATER'S** wires to your car's battery, then dip **SPEEDPLATE** brush into the miracle plating solution and plate anywhere around your car — without removing any parts. Safe, mild current works **FAST** — yet uses less battery juice than the finest light on your car.



IT PLATES AS YOU BRUSH
Brings New, Gleaming Beauty to Work, Dull, even Discolored Chrome Areas of Your Car

YOU QUICKLY
BUILD UP A
THICK NEW
PLATING WITH
EACH
APPLICATION



MAKE BIG MONEY PLATING

Now you can add to your income during spare-time hours... because 8 out of 10 cars on the road today NEED RE-PLATING. You can charge \$5.00 for touching-up to \$50.00 for replating an entire car.

Plating is fun, too! You'll get a kick out of taking rusted, pitted, worn metal and bringing it back to shining smoothness. When neighbors see the brilliant plating on your car, they'll want you to do the job for them.

And you can plate other things for profit, too... faucets, appliances, tableware, collars, heels, doorknobs and doorknobs... you can get good money for low prices you find — also solutions to plate silver, gold and chrome. There's big money in jewelry and silverware work! You get ALL INSTRUCTIONS for plating with your Speedplate Kit!

PRIZE FOR SPEEDPLATER

AMAZING NEW SPEEDPLATER has already plated thousands of cars with Extraordinary Results. Here's what users say: "To say I am pleased is putting it very mild. I have got more work than I can do... we have to start booking jobs ahead into the future! Buckle... F. S. Edwards, Ltd., The Speedplater is certainly one of the most useful devices ever placed within the material's reach. It does everything stated for it and does it exceptionally well. There's no peer chrome on my car now." B. C. Shabert, N. Y.

YOU CAN GET THE SAME RESULTS! Remember, we guarantee Your SpeedPlater, will perform for you as it has for hundreds of other satisfied users, or your money back!



MAIL COUPON NOW - YOU GET NOTHING

If you want to put new, permanent, gleaming plating on your own car, you can do it right away and not risk a dime. If you are not **COMPLETELY** satisfied with great results, just return your outfit in 10 days in good condition and get **FULL CASH REFUND** **ACT NOW!** Here's what you get: **SPEEDPLATER** Brush, with personal Anode for life-time plating. Wires and Clamps for battery hook-up enough solutions to plate most of cars; Special Buffing Wheels and Buffing Compound, Special Metal Polish, Full simple instructions. Just mail coupon with only \$1 deposit, then pay balance \$13.95 plus postage when **SPEEDPLATER** arrives, or send \$14.95 with order and we pay all postage charges. **SAME GUARANTEE EITHER WAY. CASH REFUND IF NOT COMPLETELY SATISFIED.**

SUPREME MERCHANDISING CO., Dept. RC-88
4 North 2nd Ave., Mt. Vernon, N. Y.

Please mark the electroplating kit I have checked.

- ☐ Regular **SPEEDPLATE** outfit, \$14.95 in C.O.D. and \$1 deposit.
☐ Heavy-Duty Service Station outfit, \$34.95 in C.O.D. and \$5 deposit.
☐ I enclose full price, send postpaid.

I understand that I must be **COMPLETELY SATISFIED** or I may return kit within 10-days for immediate **CASH REFUND**.

Name

Address

City State

CAR DEALERS & SERVICE STATIONS
Make BIG PROFITS with Special Heavy Duty GUIT

Now you can make **TERRIFIC PROFITS** plating right in your own shop — without removing bumpers, grills, etc. Increase value of your used cars! Touch up rust and restore worn chrome areas to bright, new sparkle! Buckle says: "Wonderful! We had excellent results!" Heavy Duty outfit electroplating on current from standard 12 volt battery. Buffing outfit, COMPLETE, only \$34.95. Includes Plating Brush with Personal Anode, Wires and Clamps for Battery Connection, Special Buffing Wheels and Compound, Special Grinding Wheel, Stripping Solution to remove old chrome, Rust Remover, Special Polish, enough Plating Solution for dozens of cars! You quickly make back entire cost on your very first job! Additional money always available from us at rock-bottom prices. **MONEY BACK GUARANTEE.** Order now! If C.O.D., send \$5 deposit.

CASH REFUND IF NOT COMPLETELY SATISFIED

MAKE MORE MONEY
IN

AUTO MECHANICS AND DIESEL

You are needed in auto garages, airplanes factories, farm shops, experimental and government trucks are repaired and serviced. National Schools Shop Method Training prepares you at home, in spare time, for these fascinating opportunities. You get everything you need, including lessons, diagrams, manuals, consultation privileges, graduate employment service. Low tuition; pay as you learn.



YOU GET AND KEEP ALL THIS EQUIPMENT



NATIONAL SCHOOLS

LOS ANGELES, CALIFORNIA

NATIONAL SCHOOLS, DEPT. J-814-68
4000 E. FIGUEROA ST., LOS ANGELES 37, CALIF.

Rush free Auto Diesel "Opportunity" Book and sample lesson. No salesman will call.

NAME _____ AGE _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

☐ Check if interested ONLY in Resident Training at Los Angeles.
VETERANS: Give date of Discharge _____

**BOTH
FREE**

WHAT'S UP
NEXT MONTH? **COUPES**
that's what!

BUILD YOUR OWN WEE BIRD

Complete set of plans,
parts list and specifications

\$200



also available in kits and completed cars
starting at \$139.50

HOLLYWOOD MIDGET CARS

P. O. Box 27706, RC-8
Los Angeles 27, Calif.

ROD & CUSTOM

OUR READERS WR

NEWCOMER

I've been a custom fan for just about six months, and I have enjoyed your magazine ever since I began reading it.

I have a couple of questions. How long have rodding and customizing been going on? And how did the word "custom" come in? I always thought a custom was something everybody did, but not everyone changes cars.

Charles Colmery Kingsport, Tennessee

• The hobbies of hot rodding and custom car building are as old as the auto itself. The first cars were certainly custom built since often only one of a kind was made. And when a particularly good chassis and body combination was hit upon, further engine refinement was tried to increase performance. However, you probably mean the terms as they are applied today. We'd say 1913 for hot rodding as we know it (see R & C for Sept. '57) and stock car customizing 'long about the '20's.

The word custom has several applications, Chuck. Among them "... a habitual course of action, or long established practice." And, "... made or done to order."

OUT OF THE 48

You-all are finally hearing from we Rebels — representatives of the only state not yet accounted for in the Out of The 48 series.

No custom body shops, that's why.

Nob
has bee

But t
for our
have an
car to
you'll
Sorry I
maybe
here w
Dave M

• Remen

You
umn no
auto m
up fast
Howev
compet
mag st
tain st
examp
a car r
— the
guys a
years
the sal
ers of
on top
John M
• What
subscri

REUP

RAM

FIN

Resto
Prote
Leo
V

(not a p
leather or
holstery.
pool. Fade
Use on he
ture. Writ
tion, color
location.

RAMCOTE
Chicago

AUGU

RS WRITE—or wrong

Nobody even knows that Tennessee has been admitted to the Union.

But to be serious, let us apologize for our state. What few customs we do have are built from pure junk. Take a car to a body shop for restyling and you'll get thrown out on your ear. Sorry I don't have a car to send in, but maybe someday someone from around here will help you complete the "48."

Dave Mason Beechgrove, Tennessee

• Remember you said it, Dave, we didn't.

HOW COME?

You noted in the Starting Line column not long ago (April '58) that the auto magazine's competition is picking up faster than things at a drag strip. However, you say you have 6 erstwhile competitors. I count 13 at the local mag stand. But don't worry; they contain stuff you guys ran years ago. One example, on the cover of (deleted), was a car run by you back in June of 1953 — the same photos! So as long as these guys are following you by over four years and giving their gullible readers the same diet again, staunch supporters of R & C will keep your circulation on top — right where it belongs.

John Hershey Allentown, Penna.

• What are you trying to do, get a free subscription?

REUPHOLSTER with a BRUSH!

RAMCOTE
REVERSIBLE
FINISHES
Restores — Colors
Protects Leather
Leatherette or
Vinyl Plastic

Renew dull, faded, worn leather or vinyl plastic upholstery: Car, plane or boat seats, headliners, sidepanels will look new in any color. Redesign, customize new or used interiors. You can change color too! Easily applied brush or spray. RamCote Flexible Finishes

(not a paint) impregnates leather or vinyl plastic upholstery. Won't chip or peel. Fadeproof, waterproof. Use on home & lawn furniture. Write for free information, color chart, and dealer location.

RAMCOTE, 1141 W. 60th St.
Chicago 21, Ill. Dept. RC



AUGUST, 1958



FREE
Giant New 260 Page
AUTOMOTIVE CATALOG!

Over 85,000 Items in Stock!
SAVE UP TO 50%
Get your FREE copy now... everything you need for your car, truck, custom styled car or hot rod. Save up to 50% buying-by-mail from Whitney! Thousands of hard-to-find items for cars from 1920 to 1958. See newest Hollywood accessories not offered in stores; high speed and power parts, custom styling equipment... all at lowest prices! Guaranteed satisfaction or money back. Our 20th year.
RUSH COUPON! Please send 25c to help pay catalog mailing and handling costs. We will credit 25c on your first order for \$5.00 or more.

J. C. Whitney & Co. 1817 U-S Archer Ave., Chicago 18, Ill.

MAIL THIS COUPON NOW!

J. C. WHITNEY & COMPANY,
1817 U-S Archer Ave., Chicago 18, Illinois
Rush giant 1958 catalog of auto parts and accessories at sale prices. I enclose 25c to cover part of mailing and handling cost, which will be credited to me on my first \$5.00-or-more order. OFFER GOOD IN U.S.A. ONLY.
NAME.....
ADDRESS.....
CITY..... STATE.....

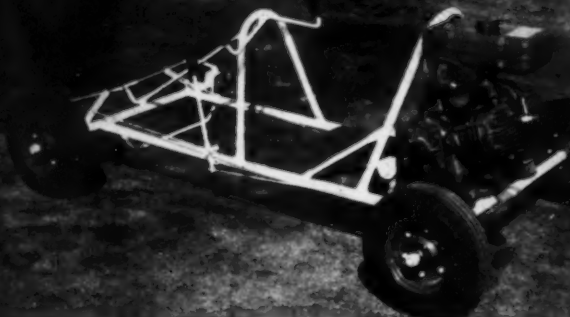
9

automart



The practice of "battery stealing" in many cities has become a very serious problem. With this new Battery Lock it is possible to lock on the battery hold-down belt and thereby preventing anyone from removing the hold-down nut and taking the battery. It is an unpleasant experience to return to your car and find your battery gone. Price on this lock with two keys is \$2.49.

KEY KAP COMPANY
Dayton 2, Ohio



"You don't need a race track for a Cool Cart" says **REED ENGINEERING** at 2054 West Slauson Ave., in Los Angeles, Calif. Their thoroughly road tested car is powered by a reliable four-cycle engine and rolls on pneumatic tires. Centrifugal clutch and spot brakes make it ideal for youngsters while the rugged frame design makes it sturdy enough for oldsters. The car is delivered completely assembled. Just gas up and go! Only \$164.50. Write for further data.

DO YOUR OWN CUSTOMIZING with a TAPKIT!



NO TORCH, no expensive tools, no special training required when you repair and restyle **AUTOBODIES** with these new job-tested fiberglass and **EPOXY RESIN "glassing kits"**.

Guaranteed to contain more and better materials than any competitive kit on the market. Available at speed shops, chrome shops and automotive chain stores everywhere.

If your favorite dealer doesn't stock TAPKITS, send us his name and order direct. Write for free 16 page booklet on customizing and repairing autobodies and price list.

For complete information on carcrafting with fiberglass and resin, order **THE GLASSER'S MANUAL**, \$1.00 ppd. Fully illustrated and non-technical, best guide to professional results. Moneyback guarantee.

***Taylor & Art, Inc., Plastics**

Pioneers in Plastics for Automotive Applications

1710 E. 12th Street, Oakland 6, California

TAPKIT C-10 \$4.45 ppd.
DEALER INQUIRIES INVITED

feeling"
e a very
his new
to look
n both
anyone
own rule
it is an
return
battery
with two

RY

2044
car is
if you
design
black.



You'll join the crew of the record-holding "Dragliner" from sign-up till trophy time at the "BIG GO" when you view Alex Xydias' thrilling films of the NHRA National Championship Drags. In addition to your duties of helping your team turn 124 mph, you'll be watching the country's hottest gas burners have it out at Oklahoma City for recognition of their home town and state, beautiful trophies and — best of all — for FUN! To secure this color film with narration by one of the nation's most respected rodders for your club gettogether or publicity program, write for full particulars. Rental is just fifteen dollars.

SO CAL PRODUCTIONS

1104 S. Victory Blvd., Burbank, California



BUG ENGINEERING, P.O. Box 91, West Covina, Calif., builder of a popular line of karts (see July '58 R & C), announces a new steering wheel easily adaptable to all types of small cars, including 1/4-midgets, etc. Prices run from \$7.50 (in bare metal) to \$8.95 (chrome plated). No welding necessary. Bug also has a new line of tapered Timken bearing wheels fitted with long-lasting "knobby" tires for the ultimate in traction. \$12.50 each is a real bargain. Write Bug Engineering for full information on these fine accessories.

MEMBERS RECEIVE:

- Club I.D. Card
- KOA Decal
- Special Discount Catalog
- KOA Club Newspaper
- Custom and Speed Problems Answered
- Assistance in Forming Clubs

DISCOUNTS ON:

- Custom Automotive Accessories
- Anson Speed Equipment
- Jackets, T-Shirts
- Lapel Pins, Emblems
- Dash Plaques, Plates
- Trophies
- Custom Rugs and Upholstery
- Leading Monthly Auto Magazines



Join Today! **KUSTOMS OF AMERICA**

BARRIS SANCTIONED

NATIONALLY ORGANIZED CUSTOM & SPEED CLUB

KUSTOMS OF AMERICA

8000 Hollywood Blvd., Hollywood 28, California, 90-66

I hereby apply for membership in Kustoms of America and enclose

\$_____ for _____ years' dues, entitling me to an official membership card, windshield decal, special discount catalog, KOA news subscription and full association privileges.

NAME _____ AGE _____

ADDRESS _____

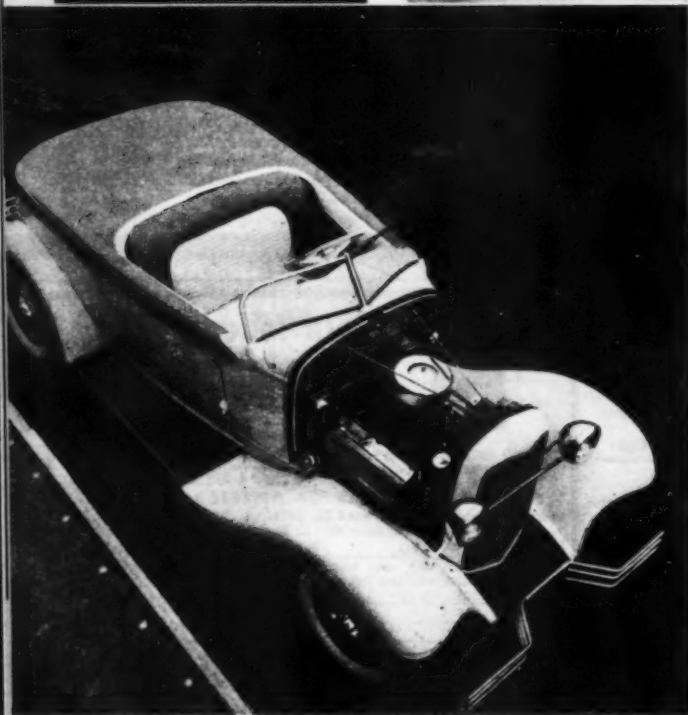
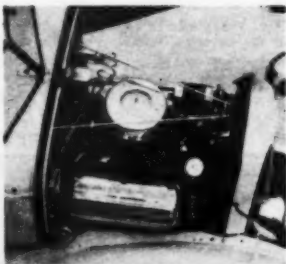
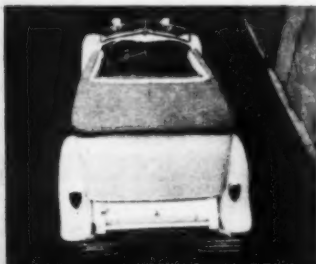
CITY _____ STATE _____

No Age Limit No Car Necessary Open to Men & Women Membership Only \$3 a Year

Jim Potter picks the...

YEAR'S

I would have to be pretty heartless to pick from all the nation's hot rods the ones that I felt were the ten very best. Objections would be raised from all sides if certain cars were flatly said to be better than others. Instead, I am attempting here to reveal what the ten best types of hot rods are — what styles are presently meeting favor with rodders from the coast of Maine to Southern California.



Converted from the once-popular short-bodied Victoria sedan, this '32 Ford takes an eye-appeal that is at once inviting for a spin along tree-shaded roads because of its new sporty phaeton styling. Bernie Stein, of Hayward, Calif., wanted a show-stopper that he could be proud of, so after 1 1/2 years of personal labor, it was ready. The transformation required cutting off the sedan body and filling in the rough edges, then completely reshaping the interior, using Sempel wood and white Naugahyde, installed by Ron Jones of King Covers, of Hayward. It has a Fiberglas cowl, aluminum firewall, modified '53 Chrysler V8 under hood.

ROD & CUSTOM

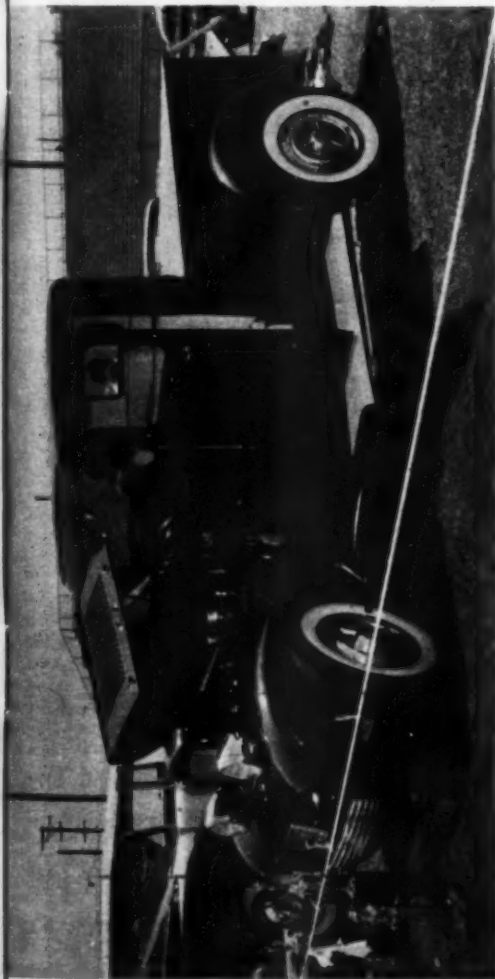
were
to be
are —
ornia.

the
one
the interior, using Sempel wood and white Naugahyde, installed by Ben Jones of King Covers, of Hayward. It has a fiberglass cowl, aluminum firewall, modified '53 Chrysler V8 under hood.

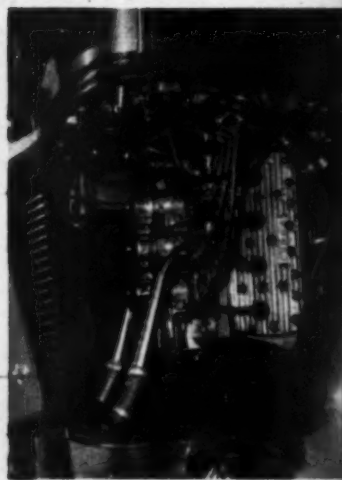
TOM

BEST HOT RODS

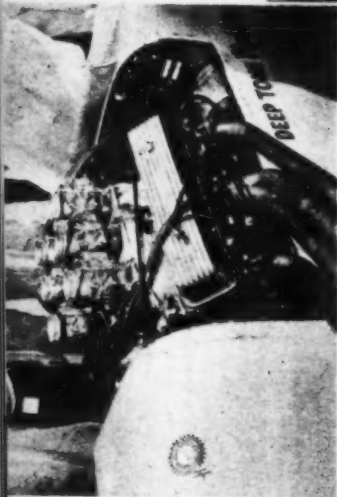
So, without further ado, on these pages are my selections.



An excellent example of a fine rod pickup is this Deuce from Long Beach, Calif., owned by Ed Couzins, member of the Renegades Car Club of the same city. Modifications include the completely upholstered interior in white Naugahyde, trimmed with black piping, dish-type steering wheel, full complement of Stewart-Warner instruments mounted in the center of the dash panel, and a highly modified V8 engine, complete with triple carburetors, chromed air cleaners, etc. The pickup body section has a special white tarpaulin, and the owner always carries full safety equipment, including first-aid kit, flares, and special road tools for emergencies.



BEST



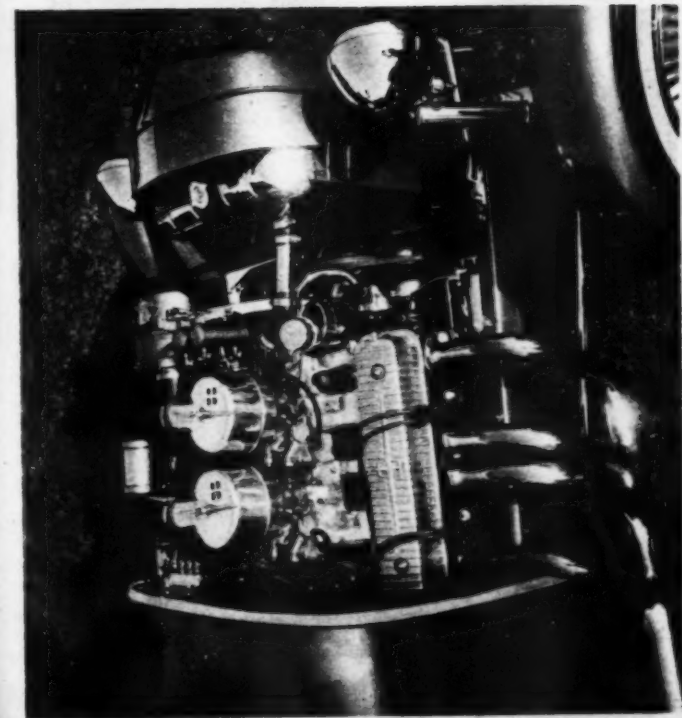
Top Eliminator at the National Championship Drags in Oklahoma City is this 1300-pound yellow dragster. Driven by Buddy Sampson of Phoenix, Ariz., the "Maney Oldsmobile Spl." features motorcycle wheels and tires on front, racing slicks on the rear. It's powered by either a 415 or 461-cubic-inch Olds engine equipped with a

Howard cum and Weiland manifold; the bigger engine did the job that won the five-foot trophy for Sampson and his crew, Joe Dillen and Lefty Muderbach. Using direct drive, the machine scampered through the quarter-mile distance in only 10.42 seconds, shortest elapsed time of the meet. Top speed was 141.50 mph.

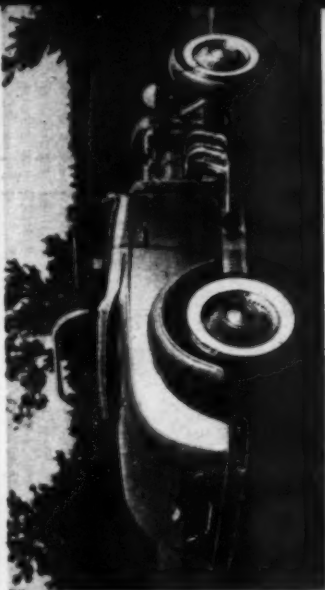
the heavy 3000-cc. engine mounted on the rear. It's powered by either a 415 or 461-cubic-inch Olds engine equipped with a cycle wheels and tires on front, racing slicks on the rear.

1958

and very maneuverable. Using direct drive, the mating stamped through the quarter-mile distance in only 10.42 seconds, shortest elapsed time of the meet. Top speed was 141.50 mph.



Skillful mechanical ability is indicated in Bob Wang's beautifully modified '29 A roadster from San Jose, Calif. The engine compartment is crammed with a McCulloch-blown Lincoln V8 of 365 cubic inches, which develops a whining power that is at once startling. Two four-



barrels sit on an Edmunds manifold, and a Scintilla Vertex magneto provides the spark. Milled heads up the compression ratio to 10-to-1, and a Chet Herbert roller cam controls ported valves. This powerhouse is hooked up to a three-speed gearbox through a Chrysler clutch.

BEST



Voted the best engineered car at the National Championship Drags held at Oklahoma City last fall, this aerodynamically designed dragster is the ultimate in automotive know-how. Jim Nelson, Dede Martin, Fritz Ohvi, and Jack Randall make up the four-man team that designed and built the Master's Dragliner. From Oceanide, Calif.,

the car features a fully enclosed cockpit with weight concentrated on rear wheels to obtain maximum possible traction. It's powered by a '55 Chevy V8, bored to 3 1/2 inches, with an 11-to-1 compression ratio, Racer Brown cam, and four Holley carburetors. It has a two-piece drag link, joined in the center by a ballcrank.

Typical of a good reconditioned and highly modified street coupe is this '32 Ford, owned by Russ Aves of San Luis Obispo, California. Rebuilt by Aves' friends, under its hood is a potent three-

cam, Mallory ignition, bored 3 1/2 inches, stroked 3 1/2 inches. Radiator is cut down and it is channeled at the cowl 2 1/2 inches. Gabriel plate-matic shocks, chromed wishbones, and a slight rake accomplished by

FROM
Martin, Fritz Ohl, and Jack Randall make up the four-man team that designed and built the Master's Dragliner. From Oceanside, Calif.,

Typical of a good reconditioned and highly modified street coupe is this '32 Ford, owned by Russ Aves of San Luis Obispo, California. Painted a passionate purple, under its hood is a potent three-carbureted '55 Chevy V8. Modifications include an Iskenderian E-2

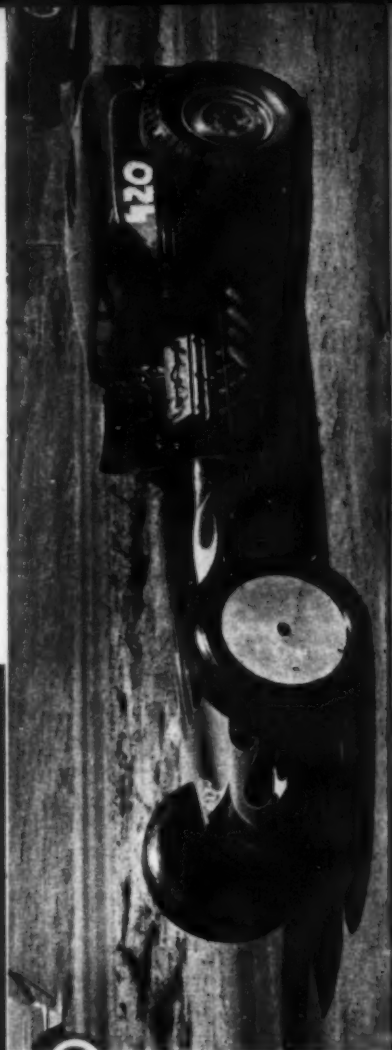
ratio, Racer Brown cam, and four Holley carburetors. It has a two-piece drag link, joined in the center by a ballcrank.

cam, Mallory ignition, bored $3\frac{1}{8}$ inches, stroked $3\frac{1}{4}$ inches. Radiator is cut down and it is channeled at the cowl $2\frac{1}{2}$ inches. Gabriel plate-matic shocks, chromed wishbones, and a slight rake accomplished by big 8.00×15 rear wheels, 5.90×15 front, give coupe its dragglin' look.

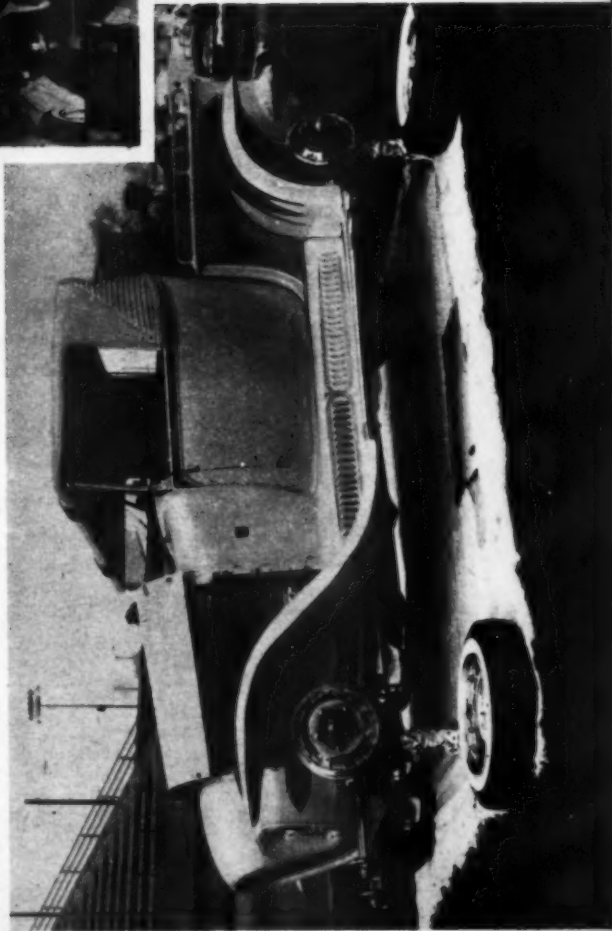


BEST

Hardly recognizable as to its origin, this Austin-bodied coupe with its chopped top and blunt-nosed frontal section is a competition machine extraordinary. With Walter Sendaval of Whittier, Calif., behind the wheel, it won the B/Competition Coupe class trophy with a top speed of 109.89 mph at the National Championship Drags at Okishema City last fall. A Mailard Automotive entry, it is powered by a highly modified '53 Dodge V8 engine of 239 cubic inches. Multiple carbureted, a hot firing system in the form of Vertex magneto setup, individual exhaust for each cylinder, gave machine excellent performance.

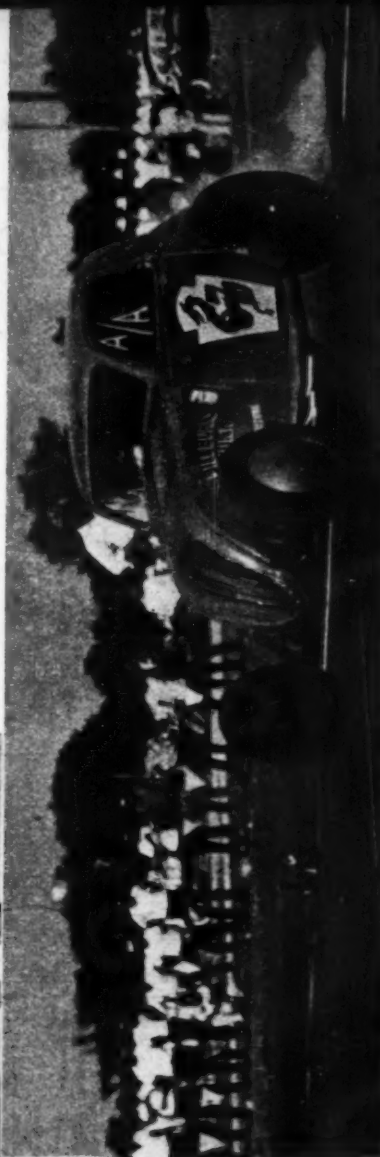


The ultimate in futuristic design in hot rod pickups is incorporated in Dick Peters' new famous "Ala Karl," built by the ingenious George Barris strictly for show purposes. Winner of the seven-foot trophy as the "World's Most Beautiful Roadster" at the National Roadster show in Oakland, Calif., this fantastic machine features such things as four-coiled air ride suspension system, fuel-injected Dodge full-race engine, micro-electric emergency brake lock, quad four-way head and taillight system, steel, removable and padded airfoam top, and the complete undercarriage chrome-plated or upholstered in pleated Neugehaide. It's pearlescent white and a sweepstakes winner.



BEST

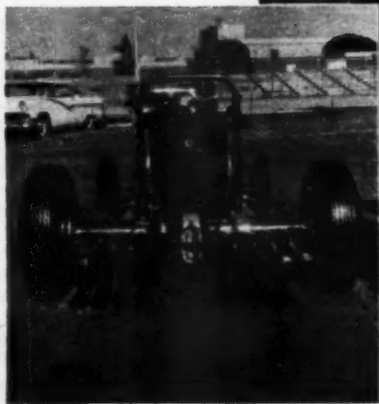
One of the hottest cars at the National Championship Drags in Oklahoma City last fall was this Buick-powered Fiat competition coupe, owned by Carl Grimes of Tempe, Arizona. It has an unusual, low-slung appearance because of its extremely narrow 40-inch rear wheel track, which doesn't help stability but apparently is an advantageous in getting good traction. Though not exactly beautiful, the competition machine walked away with the A/Altered Coupe and Sedan trophy at the Oklahoma event, which is the World Series of drag racing. Operating consistently well at the meet, its top speed was 121.62 mph; E.T. 11.9 seconds.



Engine in this dragster' position is a record breaker. At a steady pace, bodied Class B Lakester, car was driven 202.00 mph in a two-way average at Bonneville. Details of the fabulous Arduin-Merc include state-of-the-art fuel injection system, Monsoon Collins mounts, Herbert roller

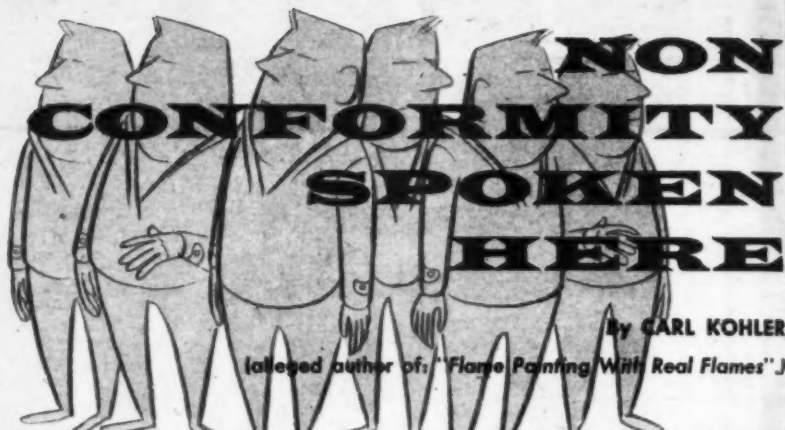
Calif., our's rear end makes a spectacular appearance because of special single-flow exhaust stack bank of eight units, one for each cylinder; these were fabricated and designed by Scotty's Muffler Shop.

Engine in this dragster's machine is a round bottom. As a safety measure, Class B Leinster, car was driven 202.00 mph in a two-way average at Bonneville. Details of the fabulous Ardun-Merc include Hilborn fuel injection system, Harmon Collins magneto, Herbert roller tappet cam. Chassis is handmade frame out of chrome moly tubing.



At Bonneville, the car's rear end makes a spectacular appearance because of special single-flow exhaust stack bank of eight units, one for each cylinder; these were fabricated and designed by Scotty's Muffler Shop.





I HAVE this nutty theory, see? According to my theory, all the originality has gradually gone out of the custom car field and has steadily been replaced by a creeping conformity to ideas and designs that lost their novelty and impact, long ago, through usage in every town, hamlet and burg from Yonkers to Pismo Beach.

Almost everyone chops and channels. Almost everybody is addicted to grill-schemes and frenched-light notions of about the same basic patterns. Show me the cat who doesn't really copy, from this source or that, and I'll show you a pedestrian.

And who wears the Blame Badge?

Well, there are those who yawp that the various professional custom car shops are to blame for the lack of fresh designs. This is two-toned nonsense with pleated fringes of absurdity. The majority of the talented men who own and operate custom car shops are veritable whirling dervishes of devotion to the new, the advanced and the unique. It's only good business to produce what their clients demand. No, blaming the professional customizer for turning out dismally stale versions of alleged custom kemps would make about as much sense as pointing the fat, hairy finger of righteous accusation at stores for selling more sirloin-tips than they do hyena-steaks to a public who narrow-mindedly eats beef instead of other meats.

If anything, the blame should be securely pinned onto the sundry individuals whose adherence to conformity is slowly robbing the custom car field of the singular element which put it into existence — namely, *originality*. Today's kemp lover is somewhat afraid to be distinctive in his car planning. He wants to have something mildly similar to what all his buddies are driving. Yet, he also would like to think he's sporting a wagon stunningly novel in it's basic design and little touches of garish detail, here and there. This cat obviously, dreams with his eyes wide open: nobody — but nobody can make conventional cake and way-out cupcakes of the same dough.

I say, pfui on the traditional approach to car customizing as it has developed today. Just because Detroit slaps some fresh innovations on their smorgasburgies is no reason for 80% of custom cardom to go ape installing imitative gismos which approximate the Detroit gadgetry — whether it be multiple glove-compartments or dual cigarette lighters. Remember — backyard designers and, later, car shops were lowering their voomwheels long before Detroit joined the act. That was true customizing. That, frents, was the halcyon age of real ingenuity, courage and aversion to hacknied methods.

Recently, I heard rumors concerning the quiet efforts of several gifted zanies who are bravely, industriously

fighting creeping conformity with the old time stubbornness and free wheeling zest of the True Custom Car Enthusiast. Because I know all the backstreets and because I possess more curiosity than tact — I present an outrageously doubtful survey made among this horde of nonconformists...

OMAR FRAPPLE...

A slight, shy type of cat who can best be described as a nervous hooty owl in bib-overalls, Omar was rather reluctant about letting me see his present car project on the grounds that the world is not ready for such practicality blended with truly modern planning.

"Man, this is *fantastic!*" I chirped, staring hard at the unfinished thingie parked in the dim light of the Frapple workshop, a reconverted chicken house.

"Where did you ever get the idea?"

"I couldn't ever take my lousy eyes off them fins, see?"

I nodded.

"Everytime a car went by — all's I could ever see was them fins, see? Nuthin' but them lousy fins, see?"

I nodded again, forcing a sympathetic expression.

"Pretty soon, I was seein' them lousy fins on almost every car going by. Stock cars, custom cars, charter buses — all of them was fitted up with them lousy fins, see?"

"And?" I urged him patiently.

"I mean, I had nuthin' but them lousy fins in my head!" Omar laughed hollowly. "Took cold showers, gave up chewing gum and even stayed off the streets. Didn't do no lousy good though, see? First thing I happen to see on TV was this here rocket-ship. And what did it have, see?"

"Fins, naturally."

Omar nodded.



"So I figger them lousy fins is what's gonna be the basic design of tomorrow and the day after that, and the day after that and —"

"So you're building a car based upon the fin," I said.

"That's the lousy truth."

"What will you call it?" I asked.

Omar looked at me as though there was a draft blowing between my ears.

"It's nuthin' but a lousy fin, ain't it? Well, that's what I'm gonna call it, see? A lousy fin, see?"

Untrammelled simplicity: the keynote of the Frapple Fin of tomorrow's custom car design. Watch for it, see?

MANFRED TRINK...

It's a sight easier to describe Manfred Trink than it is to accurately describe his contribution to original custom designing. Manfred, a roly-poly sort of slob wearing the new, highly popular ankle-length Bermuda Longies, was working on his car when I finally vaulted over the 20-foot wall which prevents a morbidly curious public from getting a bug-eyed gander at his brainchild. As I plunged into his working area, I could see, at a glance, Manfred was a jolly type upon whom the cheerfully brash approach worked best.

"Think you've put enough jagged glass on top that wall?" I asked, winking roguishly as I dragged my broken body closer to the Trink creation.

"You're bleeding, aren't you?" chuckled Manfred.

I chuckled appreciatively, too. I forced myself.

"Say, that's an exceptionally interesting... uh... vehicle you've got there!" I told him. "You've *really* departed from orthodox design!"

"Sure have!" howled Manfred hilariously. "Got the whole notion from that saying about wheels within wheels."

The Trink model was essentially what seemed to be a long oval wheel with everything else constructed *inside* of it. It appeared to be a masterpiece of balance, although the unusually wide tread apparently was responsible for the steadiness of the... uh... car.

"Just one wheel, eh?" I observed.

"Certainly!" roared Manfred de-

NON CONFORMITY continued

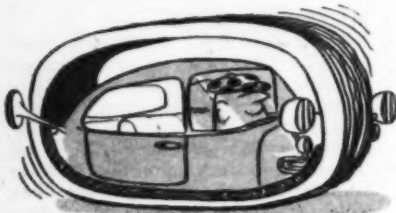
lightly. "And it seemed pragmatic to make that one wheel more along the general configuration of a tank-tread rather than sticking to the old, archaic round-type tire!"

"Amazing," I said evenly. "Absolutely amazing."

"That isn't all!" bellowed Manfred hysterically. "See that plump, rotund tire? Guess where the fuel is carried?"

"Pshaw!" I gasped. "Not inside!"

Manfred nodded, dissolving into frantic shrieks of glee.



"Why, compared to the advanced thinking demonstrated in this here now model, it's just no contest!" I avowed.

Leaving Manfred screaming joyously with pride, I painfully clambered over the wall (a stunt I might've thought absolutely impossible, in view of wounds sustained earlier, had not I been inspired for a second try by Manfred's spirited pack of half-starved, viciously bugling hounds who suddenly hurled themselves around a corner of the garage) and once again plunged back into the mundane world of today. I'll have to say one constructive thing for the Trink Tiremobile: It's going to be peachy-keeno for those Freeway lanes that seem to shrink every week.

AMBROSE GRITCHBRIPPER...

Undoubtedly, one of the most illuminating experiences I've ever endured began from the moment I stumbled into the vast, modern workshop of Ambrose Gritchbripper. To say his place was brightly lit would be a little like describing the Sahara as a sandpile. Blinding white light beat down from row upon row of searchlights to dance,

dazzle, glint and gleam upon the spotlessly immaculate tile flooring. In the midst of all this refractory grandeur I stumbled upon Ambrose solemnly making impressive adjustments upon his invention. At first squint (who could bear a glance under those lights?), the Gritchbripper custom seemed to be nothing more, nothing less than an oversized headlight—possibly one with glandular trouble. As my eyes slowly accustomed themselves to the harsh surrounding glare, however—I saw that this craft also had wheels, a passenger and driver area and devilishly clever modifications from the static conceptions of automotive construction. Which is nothing more than a fancy way of saying the thing *did* kinda look like a car if you peered hard at it with a car in mind.

Ambrose—garbed casually in a shantung loincloth (which was certainly practical, considering the assumed total of, perhaps, some 5,000,000,000,000 watts beneath which he labored) and matching eyeshade—removed his double-lensed shades and favored me with the haughty air of a man who cares little to be interrupted at his work.

"Blow," he instructed in cultured accents. "Beat it."

"Gracious me, but this model is as modern a model as I've ever hoped to see modeled!" I quipped.

"Scram."

"Obviously," I continued, "you're dedicated to outdesigning the multiple-lights boys. And from the looks of this... uh... marvelously conceived car, you've just about reached the ultimate in headlighting!"

"Evaporate."

I groped my way through the fierce glow to the rear of the model. Here, I could see equally ingenious thought given to the taillight planning.

"A blinking triumph!" I jested.

"Vanish."

Suddenly, Ambrose stalked across the acres of workshop floor to a switch-box. A second later the entire premises were blanketed in total blackness, only the faintly glowing filaments of the myriad lightglobes fading from red to pale orange... and then winking out into nothing.

the spot-
g. In the
grandeur
solemnly
nts upon
nt (who
er those
custom
nothing
adlight -
trouble.
ed them-
ng glare,
raft also
d driver
ifications
of auto-
nothing
ying the
er if you
in mind.
n a shan-
certainly
ned total
0,000,000
red) and
his doub-
me with
who cares
work.
cultured

del is as
hoped to

"you're
multiple-
s of this
ved car,
ultimate

he fierce
Here, I
thought

ted.

across
switch-
remises
ss, only
of the
n red to
ing out

CUSTOM



"Aw, come on," I pleaded. "Just one more look at it. I won't blab about your design to anybody. Honest injun." I made the scout sign but it was so dark I couldn't even see it myself although my hand was in front of my face.

"Depart," said Ambrose from somewhere in the utter gloom.

I departed, the brilliant custom car of Ambrose Gritchripper still burning clearly in my mind. Somehow, I could not blame him for taking such care to protect his idea against unknown viewers. Boy, if the Karris Brothers ever caught even one glimpse...

SIGMUND TWENGLE...

Lastly, I unearthed the unpretentious shop of Sigmund Twengle, an unfrocked striper—who having retired on the profits derived from his fiendishly attractive Rust Decals—was now engrossed in experimentation of the most elaborate and abstract approach to custom cars ever known. I found Sigmund lustily wielding his own version of a spraygun upon what appeared to be a wooden mockup of a reasonably conventional custom kemp.

"What goes?" I inquired.

"My own formula," Sigmund informed me tersely, keeping his eye on the billowing clouds of paint. "Took me almost nine years of refining the other formulae, but I think I've finally cut the mustard, dad!"

"What's this formula based on?" I asked.

"Cut mustard, dad."

Slowly the undulating clouds of spray settled upon the wooden mockup

and began hardening to a glossy glaze. Before my astonished eyes that stuff actually coagulated. I turned, blanching whitely, to Twengle.

"Ye gods, what a formula!" I bleeped unbelievably.

"Yeh, man!" Sigmund's paint splattered face wreathed in a happy grin. "I spent almost ten years working down the wrong track. Tried getting the same results with a derivative squeeze outa Instant Gin combined with household detergent and just a dash of nitro. Almost blew East Los Angeles clear into South San Bernardino. Didn't quit though. Kept on trying, kept on staying in there mixing until I finally cut the old mustard!"

"Cut it with what?" I demanded.

"Instant Chicken Fat. Works like a charm. I strain the color desired from ordinary housepaint. Watch, now!"

Sigmund thumped the hardened coat of paint with a skilled finger, got a firm grip on it and lifted the entire paint job off the mockup!



"About fifty-three coats of this jazz — set it on any good frame, add wheels and, dad, there's a custom car!" said Sigmund carting the paint-job away.

I left, still rubbing my eyes.

... and thus ends our guided tour of several new schools of endeavor in truly modern car customing. Perhaps you know of similar cats whose uncluttered thinking will be responsible for whatever startlingly unconventional cars grace the roads and byways of the future. For that matter, perhaps you are one of these giants of design.

If so, rest assured I'll keep my mouth shut, old buddy, while you're busy helping to stamp out conformity. ●

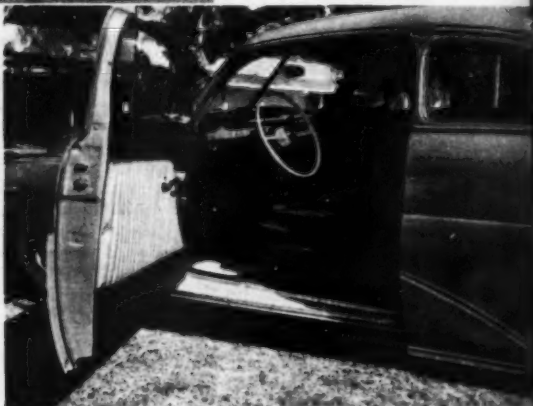


...standing Merc glitters and glows

THE

By JIM POTTER

To simplify front-end, three horizontal bars are floated in custom-molded grille shell; then the front bumper pan was molded in, the bumper itself smoothed of all attachment bolts and guards removed. Black scalloping emphasizes the twin aircoops on the lower forward edges of the hood. Black and gold leatherette dress up interior with pleats and rolls.



A different installation of Packard taillights gives appearance of a heart when viewed at a certain angle. Lenses are inverted together.



Thou
ly s
cury
has
lacc
'54
tail
whic
thin
com
mod
true
Be
ed
con
shel
mol
pen
cal
hou
in f
reve

ows

E

DAZZLER

Thoughtfully designed and cleanly executed, Bill Wolfe's '51 Mercury semi-custom two-door sedan has 20 coats of hand-rubbed gold lacquer paint, high-lighted around '54 Buick headlights, grille and taillights with black scallops, which in turn is trimmed in pencil-thin white. This different paint combination, along with its body modifications, make the custom a true "Dazzler."

Body reshaping included rounded hood and trunk lid, specially contoured and frenched grille shell, reshaped wheel wells, and molded in front and rear bumper pans. Doors and deck are electrical push-button operated; side exhausts emanate from porthole cut in front fender. Wheels have been reversed; Moon-type disks used.

ckard
of a
ertain
ther.



the full story on —

TOP

no easy job, roof lowering calls for far more work—



DID YOU EVER try to fit together the remaining halves of an ice cream cone after a horizontal section had been taken from its center? That precisely is the problem you'll run up against when you plunge headlong into one of the more radical customizing practices: top chopping. Luckily, though, body metal can be successfully shoved around — unlike the cone — until the halves are reunited. But this takes a heap of doing, and those of you not formerly exposed to an operation of this nature had better rein up long enough for us to brief you on the pitfalls that lie ahead.

The best way we can get over to you the idea that top chopping involves more than merely slicing the top off your car, hacking away a couple of inches from the vertical posts, then rewelding the upper half back on again, is to ask that you obtain a photo of an automobile. Make it a side view, if you will, and either cut it out of the paper or a magazine ad. Now with scissors, cut horizontally right through the car just above the window sills. Then make another cut a little above the first to represent metal removed. Now does the upper half align with the bottom?

And there, in a nutshell, lie the complexities of top chopping.

Not since the days of the Model A have cars been constructed with vertical window pillars all around. Styling demands sloped windshields and tapering roof lines. And this is where roof lowering starts and ends.

P CHOPPING

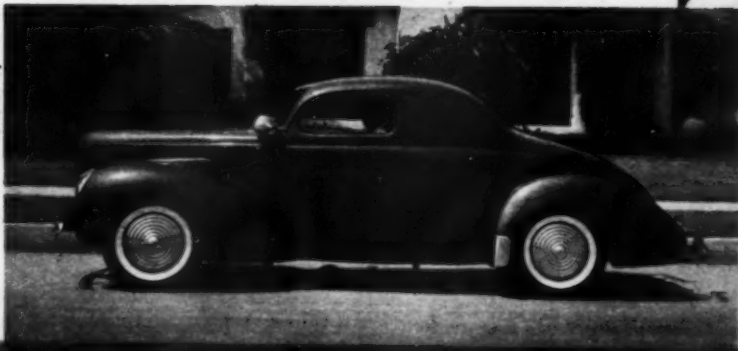
k—

and expense—than meets the eye



But to take it from the beginning, turn the page...

Photos by Barris



eam
That
long
kily,
ne—
e of
n up

y in-
uple
k on
side
Now
dow
re-

with
elds
nds.

1958

TOP CHOPPING

what you should know and what to look for before taking the hacksaw

THOUGH the basic procedures for chopping a top are generally the same for all makes and models of cars, various body types and differing construction methods mean that the details involved will vary slightly between one car and the next. Fundamentally, though, there are six types of bodies to contend with; pickup trucks, hardtops and coupes (or sedans) — with both early and late versions of these three. (Convertibles are omitted since it is not within the scope of this story to discuss the steps involved for chopping non-metal tops).

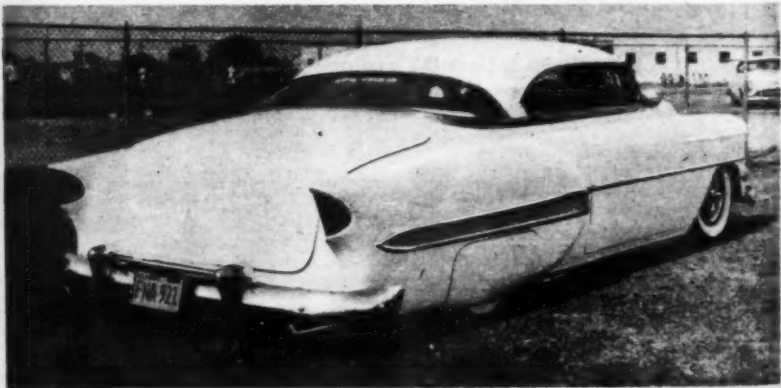
The path to a successfully chopped top is a narrow one. In short there is a certain order in which the steps must be taken. First, and foremost, let's assume that your car can stand chopping without harming its overall styling. Most cars are blessed with an overabundance of roof height and can take a three or four inch reduction.

Others were designed with extremely low roofs and cannot take additional lowering without assuming uncomplimentary lines. (The '48 Hudson, for example).

Actual metal mangling is preceded by careful removal of all outer chrome trim, window glass, inner upholstery and other furnishings. Torch work around a chimney-like door post can spread flames throughout a car quickly if any inflammable material is close by. Scrape away underseal, peel off weather stripping and rubber strips. More easily stated, strip the entire car until it resembles a gutted hulk. All parts, accessories, trim, etc., should be tagged and stored out of harm's way for re-installation later on. A few minutes spent now can save hours later.

Make the chop a reasonably moderate one. Don't be like the fellow who chopped as much from his car as he

All body types are equally adaptable to top chopping, but some will lose their original design appeal unless discretion is used. Here is a tastefully done job on a 1954 Chevy hardtop which still retains its original inherent good looks, but is far lower. Note the reduced rear window height.





align windshield posts
to your car



align center posts



split top-align windshield and
rear top supports

There are three general ways in which a car's severed top can be reunited with the bottom. Example at top illustrates alignment of windshield posts, but center post will need realignment and great deal reshaping will be necessary around the rear window. Center example shows alignment of center post, with some realignment needed at the windshield posts and a bit of shaping near the back window. Bottom example shows alignment of both windshield posts and rear of top, but top has to be split longitudinally and strip of metal added (since "turret" top has actually become longer). Each method can be adapted to the chopping of late model steel-topped cars. Of specific importance is reinstallation of rear glass. Most back window glass cannot be cut down, so a plastic substitute must be formed, or stock rear window opening is retained and glass leaned forward at a greater angle (see text for complete explanation).

could as long as he was doing the job, and wound up with a grotesque looking machine that defies clear driver vision. Discretion at the beginning could have saved him lots of discomfort later.

Three and a half or four inches is a pretty sizeable chunk to hack from a windshield. You can get an idea by covering the upper four inches of your glass area. Some roof lines actually slope upward toward the rear (to clear the heads of rear seat passengers) so in a few cases slightly more can be cut from the rear of the top than from the front.

Many chop jobs have been ruined by mis-measurement where the owner intended to remove only a moderate amount of top height, but who wound up trying to equalize the amount cut from each post because he erred with

the measuring tape. (Much like leveling a table by cutting the bottom off first one leg, then another, and so on). *Don't forget* to make all measurements *vertically!* If you're set on cutting, say, four inches from your top, then more than four inches will have to come out of the windshield post as measured along its slant.

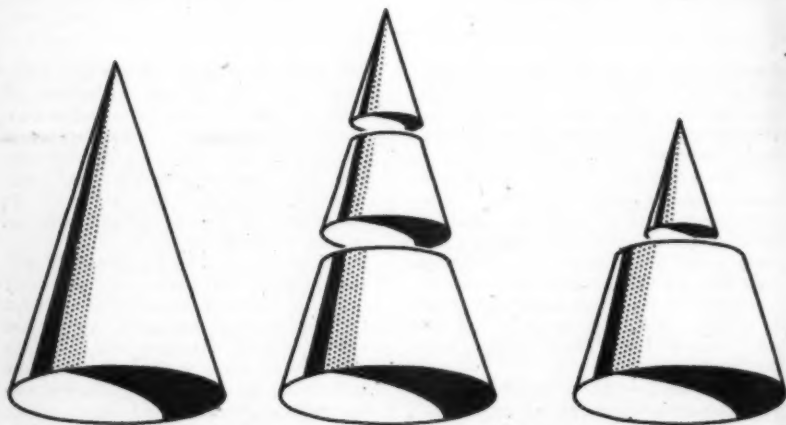
There are a variety of ways to refit the severed top back onto the body after the required amount has been cut from all vertical members. As pointed out previously, the posts will not align due to their slant so the difference has to be made up somewhere. The top can be rejoined with the center posts aligned and with the windshield posts and rear top sections needing reshaping; or the top can be fitted with the windshield posts aligned and all the

difference in top length being made up at the rear window area; or the top can be split longitudinally, the fore and aft posts aligned and the resulting gap across the top filled with a strip of metal. Each of the methods are illustrated.

In the case of cars built since 1946, rear window glass cannot be cut down due to the very nature of this specially formed glass. Therefore, an oft-referred to solution is to use sheet Plexiglass, heated and bent to conform to the shape required. In other cases it may be possible, when chopping the top, to retain the stock-size rear window and obtain the necessary lower roof lines by sloping the rear glass forward. One of the latter cases is illustrated in the how-to-do-it on chopping a '51 Mercury top in this issue. On pickups and other cars where the

rear glass is flat, cardboard templates can be made of the finished window opening and a glass shop will be glad to cut a piece from a sheet.

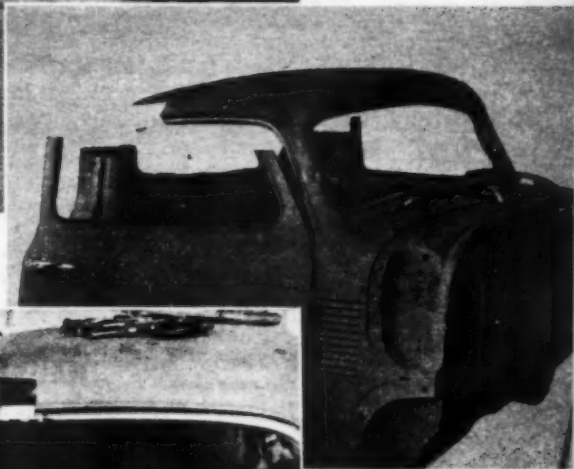
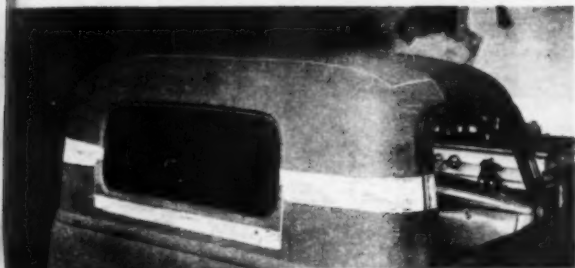
Above and beyond the major problems already discussed are the thousand and one details which the customizer will encounter as he drops the roof of his car to its new, lower height. Foremost, no doubt, is the actual metal working procedures. The welding, hammer-and-dollying, pecking, stretching and shrinking, leading and, finally, filing, are steps *not* to be taken by the amateur. The best we can do in the space allotted is to warn would-be choppers who have not had considerable experience along these lines to stand back and let the professionals do the work. The turret top of a car is no place for a novice since, among other things, the heat of care-



A graphic illustration of why chopping requires such extensive metalwork. Car tops are tapered like a cone (left). When a section is removed through the middle (center), the top and bottom halves no longer match up (right). Obviously, radical rework is needed here to refit sections together again.

plates
window
e glad

major
e the
h the
drops
lower
s the
t. The
peck-
ading
to be
st we
warn
t had
these
pro-
st top
since,
care-



Three stages during the chopping of the R & C Dream Truck. First the $3\frac{1}{2}$ inches to be removed were marked with a scribe and the area to come out chalked for photographic purposes. Note that not all the height reduction is to come from the rear window. Only $2\frac{1}{2}$ inches came out of the glass area while the remainder was taken below the window to minimize vision impairment. The second photo was taken as the front half of the top was being replaced. This top was split longitudinally so rear panels and windshield posts would align. The third photo shows the gap across the top which was later filled with a strip of metal. Jog was made in cut so advantage could be taken of the added metal strength near the rear crown of the top. The upper door posts were cut later on.

less welding can cause such a sizeable steel panel to warp and buckle into irreparable condition.

But now we'll let you encounter an actual roof-chopping procedure. Two

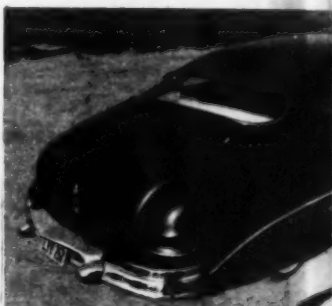
of them, in fact, which should pretty well round out the problems involved when performing the necessary surgery on any of the numerous body types adaptable to top chopping.

Mercs - the most p

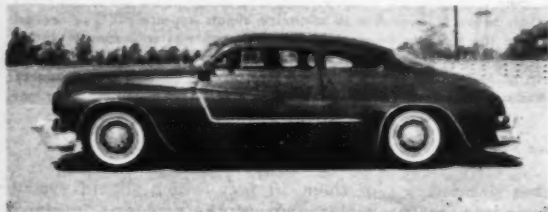


'51 was given hardtop look by building the side glass frame from curved light metal.

Most chopped Mercs retain stock rear windows. Following pages reveal how this is accomplished.



Degree of slope to roof helps conceal the true identity of this Merc chopped top example.



Centerpost was retained on this example and kept vertical, instead of being leaned ahead.

Stock size rear glass from a '4



st popularly chopped cars

THE '49-'51 Mercury is without a doubt the most popularly chopped post-war car. Its basic design permits chopping without loss of good proportion and the variety of ways in which the side window treatment can be handled practically assures that no two of them will be lookalikes. Here are just a few of the numerous chopped Merces — and if this fires you to the point of wanting to hack into your own Mercury, then a flip of the page will show you what the procedure involves.

TOP CHOPPING



Another Merc with hardtop appearance, though $\frac{1}{4}$ -window post is vertical. Note V-d windshield.

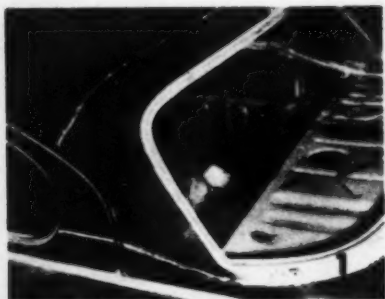
ear glass from a '49 was used on this chopped '51. Door posts slant ahead. Drip rails removed.



TOP CHOPPING

...how-to-do-it on a Merc

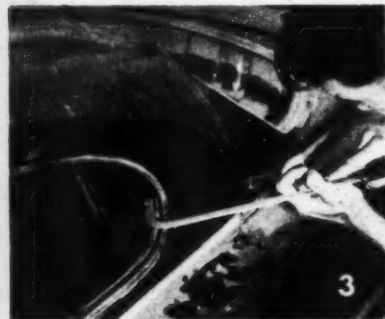
PHOTOS ON THE preceding pages attest to the popularity of chopped top Mercurys — especially those incorporating the '49-'51 styling. So though we don't expect all Merc owners to rush out with hacksaw in hand and begin whittling away at their pride and joy, here is a look at what roof lowering on this car involves. Warning: Leave the job to a competent metalman. These photos will show how involved the job can get and, we hope, scare off the novice who might otherwise discover — too late — that he has bitten off more than he can chew.



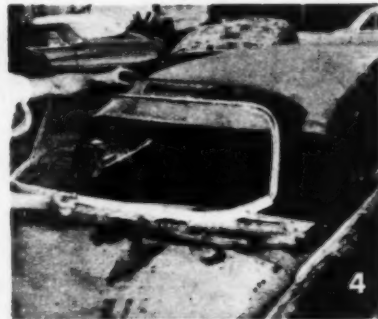
Important first step in top chopping is to strip the car of all glass, rubber and metal trim, inner moldings and upholstery. Then marks are made where cutting will be done.



The vertical center, or "B", post is cut completely out with a hacksaw. It can be discarded if hardtop appearance is wanted, or it can be replaced as will be done on this Mercury.



More hacksawing. This time rear of the top is severed from the body, though cut does not continue through to rear window opening as will be explained later on. Glass frame . . .



...is removed in its entirety. Since the rear glass cannot be cut down, stock-size frame must be retained. Thus, to achieve a lower roof line the section must be leaned forward.

top
we
ing
in-
now
vise

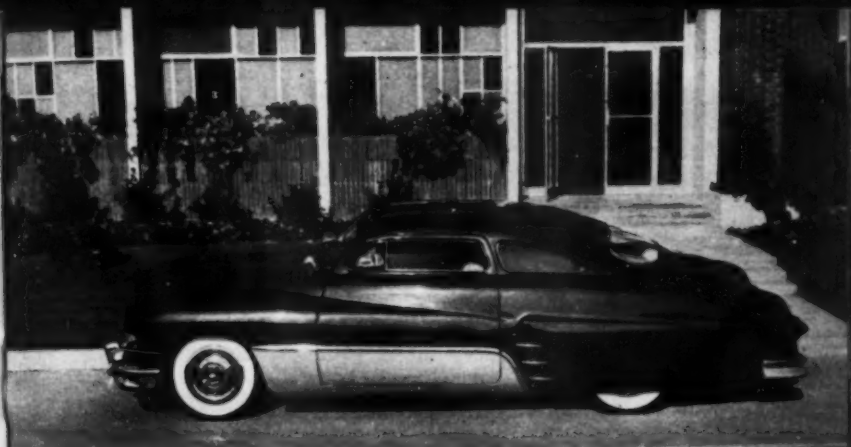
2

com-
arded
can be
rcury.

4

the rear
frame
lower
forward.

CUSTOM



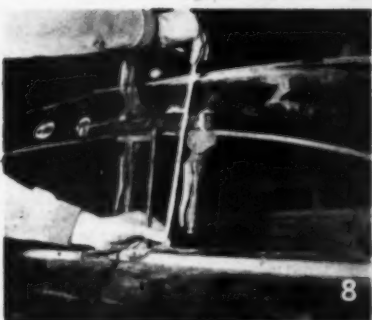
Finally the windshield, or "A", posts are cut. This top is being dropped about three inches, but post measurement is more than this measured along the slant. 3" is the vertical chop.



Heave ho! and the Merc is scalped. Though parallel scribe lines denoting the cuts were made on all posts, only the upper lines were followed with saw. With the top off, lower...



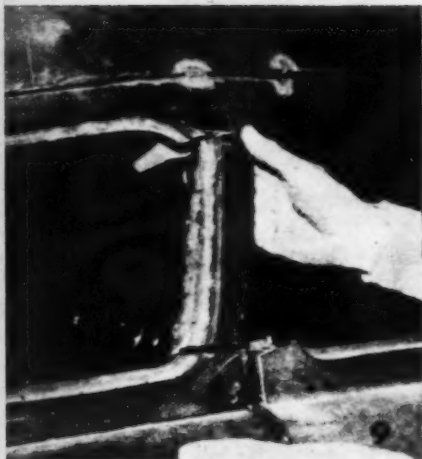
...cuts are made. Though not necessary on all cars, this Merc's top was also cut along drip molding line. Here careful measurement is taken before tackwelding top back in place.



More measurements. Importance of this cannot be overstressed — unless you want a lop-sided top! Check heights at several points around the car before welding permanently.

AUGUST, 1958

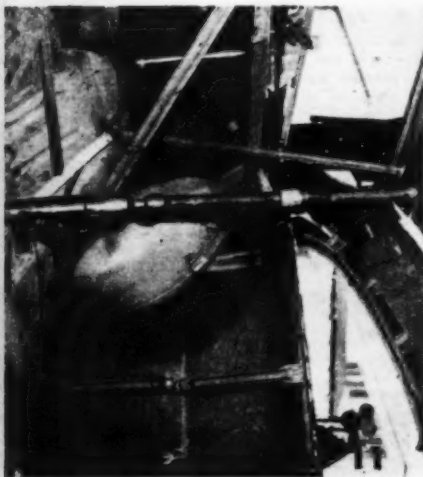
37



Tackwelds hold top as centerpost is placed. Because top went forward so the "A" posts would align, the "B" posts must be slanted forward as shown to conform to new angle.



Windshield posts are welded after diagonal measurement through glass opening assures that the top sits absolutely square. Note the jack inside car holding the top in alignment.



Around back things are a bit more complicated. Even the with roof replaced, 3" height has not been cut from the roof panel. Glass frame is set into opening at desired angle...



...and overlapped metal is cut away until frame fits the hole. Then after tackwelding solid weld is followed by alternately heating and hammering bead to ease later metalwork.



Follow procedure until all seams are done. Note in this photo the seam running clear across the car's top denoting where the glass frame was removed in its entirety from car.



Top has to be split forward and aft from the longitudinal cut so the metal could be pulled to shape required by new positioning of the glass frame. Top is now ready for the final...



...metalwork and cautious lead use. It was decided on Merc shown to join the upper door frame to top so car would appear as a semi-hardtop. Here the "A" post is being leaded.

AUGUST, 1958



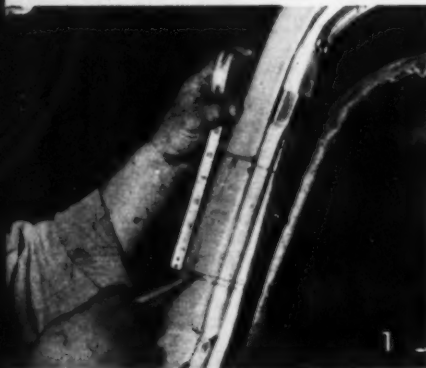
Block sanding between the successive coats of primer will smooth imperfections remaining after the metalwork. Top chopping should not be attempted by novices—a word of warning!

TOP CHOPPING

the older

THOUGH the Merc shown on previous pages is perhaps the most popular single model for chopping, by far the greater number of chop jobs are done on cars built during the '30's. The larger percentage of these are, of course, whittled down to present less

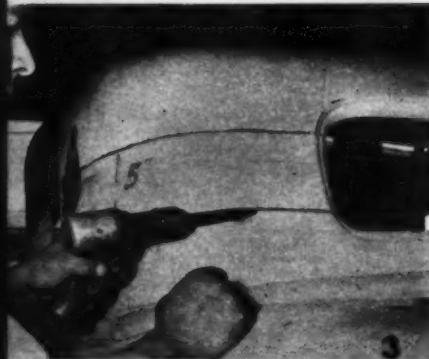
frontal area thus aiding them in their competition quests, while the rest are, like their later model counterparts, intended for street use. The comparative ease with which these early models can be hacked down, plus the fact that most are blessed with an overabund-



Early models can lose as much as half of their post height without impairing driver's vision. This car, intended for street use, has been stripped and marked for a 5" chop job.



Rear of top is marked where rear of top and door posts are closest to true vertical thus easing later metalwork. Cut lines must be as nearly parallel as possible, an obvious point.



Hacksaw cannot span cut distance, so an air-operated chisel is used. The cut is best made just short of scribed line and a body grinder used to bring the cut to a precision edge.



With rear top sections removed, amount of this chop job is easily apparent. Before deciding extent of top chop, check with local authorities to learn minimum windshield size.

ROD & CUSTOM

er

cars— for competition or street

their
t are,
s, in-
rative
s can
that
bund-

ance of headroom, are the factors making pre-war cars those most often made to undergo top chopping. The '34 illustrated should serve as a guide to the steps required to reduce the top height of most older cars.



Five inches of windshield height, (measured vertically), are then cut. Another cut part way through posts will be made so that the post can be bent to conform to the angle needed.



Once the cut edges have been sized with a body grinder, top is set back onto the lower part of the body. Note that rollbar inside coupe was built to conform to new top height.



Measuring tape assures that top is accurately situated before welding begins. In comparison to chopped Merc shown earlier, this top was moved back so rear of the top is aligned.

AUGUST, 1958



Alternately welding seams and hammering to keep unwelded halves aligned, Barris continues on around the top. "Boxy" shape of older cars accounts for chopping popularity.

ount of
efore de-
with local
eld size.
CUSTOM



Leading edge of top has been moved aft about $1\frac{1}{2}$ inches, so windshield posts must be reshaped to conform to angle. Severed section has been replaced here and upper joint...



...welded before the lower one. Bottom edge is to have a flaired appearance when finished, so piece of metal is added to the car's cowl. The doors, removed during top chopping...



...are now replaced, marked and cut accordingly. Marks were made as close to vertical portion of posts as possible to ease alignment. Front door post gets greatest reshaping.



Rear door post goes together with door on car. Fit can be closely checked during the steps by closing the door and visually seeing its alignment with surrounding body panels.

10

edge
finished,
a cowl.
ing ...



13

Once all seams have been welded and majority of heat-buckled warps hammered out, steps prior to necessary leadings are begun. Here welds are carefully cleaned of dirt and scale.



14

With area cleaned and tinned with special compound, stick of lead is heated to semi-fluidity and paddled over the welded seam. More than enough lead is added so that...

12

door on
bringing the
ly seeing the
y panels.
CUSTOM



15

...when excess is ground off the surface is as smooth as it was originally. Pressure on the grinder should be light when grinding lead as it tends to be quickly ground away.

AUGUST, 1958



16

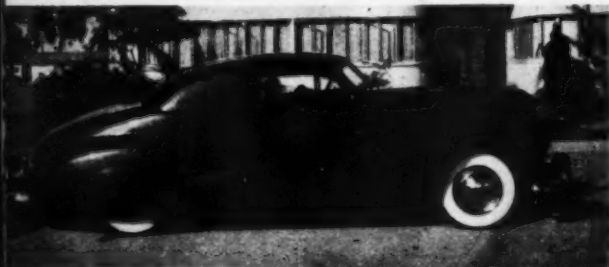
Finally, edges are trued with a small, curved file. Next will come heavy priming, sanding with paper rubber block-backed, the fitting of glass. See cover for photo of finished car.

43

TOP CHOPPING

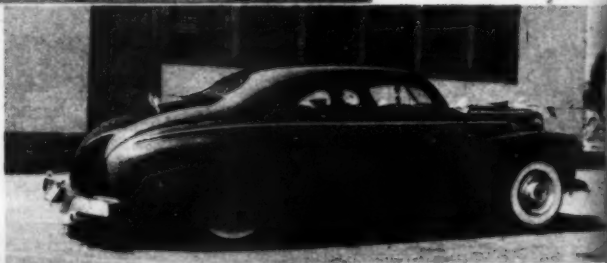
all makes,

are equally adaptable to chopping.



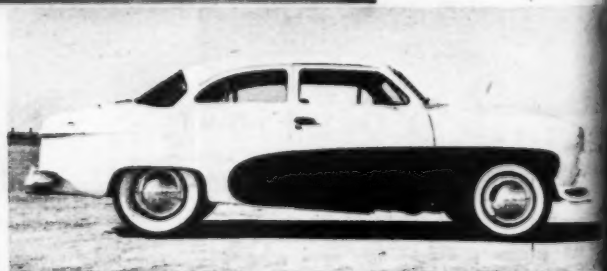
1941 Buick coupe not only has emerged from chopping operation, but has lost $\frac{1}{4}$ -windows.

Fords from '41-'48 are another popular car for chopping. Here's a fine example of chopping.



Nothing escapes chopper's saw. Early Ford is the victim of chopping, but is well done.

This Ford was chopped, but uses full-size wrap-around rear window from a later model car.



models and body styles

here are a few of the more tasteful examples

Ford 2-door was turned into a hardtop during chopping by welding upper door posts to top.



1957 Ranchero, with a vertical rear window, is easier to cut down than a coupe or a sedan.



Case where rear window was made smaller instead of leaning stock one forward, a little.



Ford convertible has a chopped windshield, an equally-cut Victoria top permanently installed.

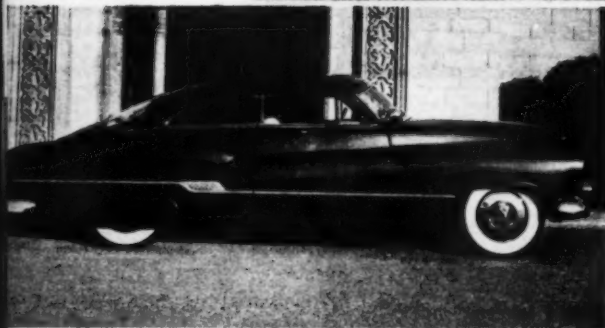
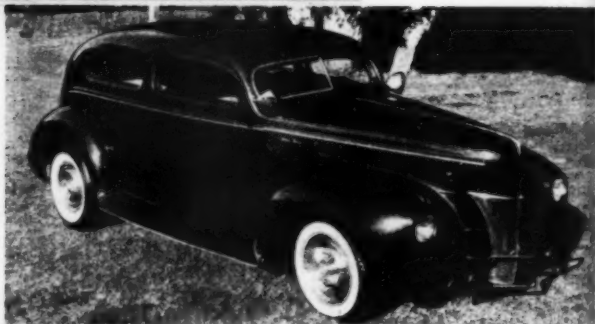


TOP CHOPPING



Popular chopped Ford. Rear window of plastic has aided the customary glass fitting hassle.

Coupes aren't the only chopping bait. This '40 2-door is shown in color on this month's cover.



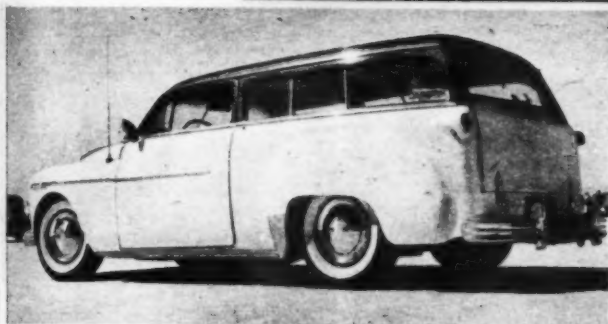
Someone once said GM's fastback design could not be chopped, so Barris did it anyway!

Here's proof that even 4-door models cannot escape the customizer wanting low roof lines.



continued

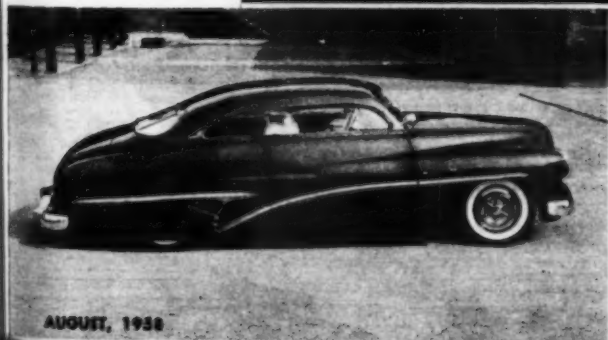
A rarity. Merc wagon's top was chopped above the window line for the pancake-top look.



Chopped Plymouth wagon. No panel-beating here, but lots and lots of post-stretching.



'49 Chevy coupe underwent surgery for lower roof lines, and has 1-piece Olds windshield.



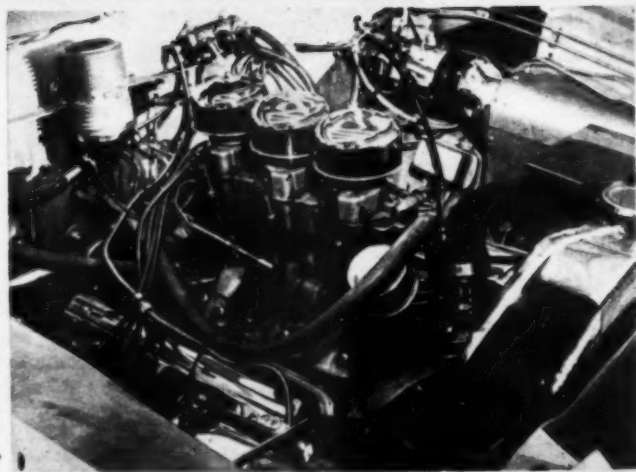
Summing up with yet another Merc. Convertible doors were used in this pillarless hardtop.

FURY-IZED FORD

a plymouth powerplant lies beneath pancaked hood



By DON McCLURE



ROD & CUSTOM



Pancaked hood of Earl Clausen's unusual '50 Ford conceals engine which once powered a Plymouth Fury. Royal Blue and Green Lime paint treatment emphasizes the hood scoop and unique grille. Chevy headlights and reworked DeSoto bumper with nerf bar-like grille guard complete the frontal restyling of Bend, Ore., custom.

Lower deck section was severed and molded to body giving trunk a pancaked effect matching hood. Neat peak has been lightly scalloped, then white-edged. Rear bumper is, like front one, from a DeSoto, and has through-exhausts. The deeply tunneled taillights are emphasized by clever use of paint. Pressure on deck lid opens doors.

AUGUST, 1958



Neat-as-a-pin interior has fully pleated door panels and striped headliner with pleats in diamond shape. The Blue and Lime Green shades match exactly the exterior paint. All metallic items not upholstered have been chromed. The exposed exhaust, leading from beneath the doors, is capped for street use but unplugged for Sunday drags at which the striking Ford is a consistent contender. The dash features a new housing grouping of instruments for checking engine conditions.



Customizing for SPEED

IN THE JULY issue of R & C, author Ted Gondert gave us the illustrated tour of how to more effectively streamline a car while customizing. In this, the second part of the story, we encounter a subject equally important which is too often glossed over, if considered at all. Once you have achieved an effective design to maintain a satisfactory air flow, jump on to step two, which may be likened to putting a tail on your kite.

HOW EFFECTIVE your present design is in maintaining a good air flow, conveyed smoothly to the rear of the car, can frequently be seen in the dirt pattern after driving in the rain. Of course, the speed should have been reasonably high, say 50 or 60 mph. Try to observe the pattern just after stopping. Sometimes a clearly defined line is drawn across the roof where the flow separates from the body. You know then what shape the flow will follow. All you have to do is reproduce this slope in metal, fiberglass or plastic. For those residents of the northern parts of the United States, an excellent form can be gleaned from the carving away by the wind of a heavy layer of snow on the car. This is probably one of the best methods of streamlining, as the air does it for you. The only problem lies in a piece of road suitable for some 50 mph after a heavy snow storm.

The only thing left to do now is stabilize the car. But first, what is stability? The stable car should be unaffected by sidewinds. That is, no driver correction is required at any

speed. This is quite difficult to attain in practice and the goal should be a sort of practical stability where the corrections required are so small you wouldn't notice them. A striking feature of a practically stable car is that you can't really tell from which side the wind is blowing.

The requirements of stability are simple. The CG must be ahead of the midpoint and the Apparent Center of Pressure (ACP) must be between the CG and the midpoint.

The ACP is the point that must be brought into line if we are to have our stable car so let's see what it is and then what can be done about it.

The ACP is determined by dividing the moment on the car, due to a side wind, by the side force. Not a particularly difficult concept until you investigate a very streamlined body. Here the ACP can act ahead of the body, which is a little difficult to see. To see how this happens let us consider a streamlined body with air flowing over it at some small angle, 5 or 10°. This wind exerts a force at the front of the car, in the direction of the wind, of say 100 lbs. Then comes the joker. It also exerts a force at the rear, in an opposite direction of say 50 lbs. As far as the moment goes the two forces add and if we take a 20-foot car length the moment about the middle is 1500 ft.-lbs. But the forces themselves, since they are in opposite directions, tend to cancel each other so we have a measured force of 50 lbs. If we simply divide the moment by the force to get ACP

and

STABILITY

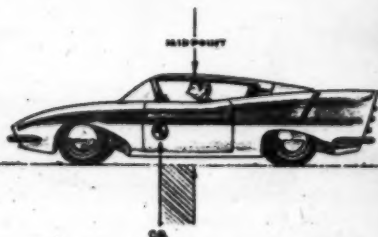
By T. R. GONDERT

we have $\frac{1500 \text{ ft.-lbs.}}{50 \text{ lbs.}} = 30 \text{ ft.}$ or the

ACP is 30 feet forward of the midpoint, 20 feet ahead of the car. This will serve to illustrate simply I hope, how the Apparent Center of Pressure can be ahead of the car.

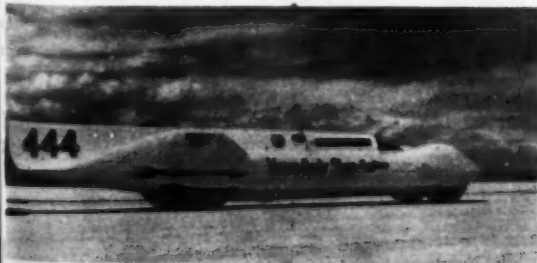
In our stable car we want the ACP at the midpoint or there about, so we simply add a fin to produce a force at the rear. In our example, we could eliminate all moments by a tail fin producing a force in the direction of the wind, of 150 lbs. at the rear. This still leaves us with a 200 lb. force but the tires can take care of that. In practice, the effect of the tail fins, if correctly designed, is to yaw the car into the wind producing a tire side force equal to the wind force. Since the forces chosen are quite high, the tires can handle the actual forces rather easily.

And now to get that force at the rear we add a tail fin. Unfortunately, these get rather large and work best if mounted on the roof. It can be done without having to lower the fins for underpasses but don't expect much



Drawing above shows the relationship of the center of gravity to the midpoint of a proposed design which follows the principles as set down in the article. In order to achieve a stable vehicle, Apparent Center of Pressure must fall between CG and midpoint (shaded area). Fins do the trick, as without them, ACP would be far in front of car.

from a pair of fins even the size of those on the Dodge. The following approximate size, as a pair, proved to be satisfactory in a model investigation of a streamlined Studebaker. As these are quite long, they are slotted at about 45° from the outside in.



The Vesco-Dinkins four-barraged streamliner which previewed of 1957 Bonneville Speed Trials uses a long, low approach to the finned for stability idea. Car proved to be extremely satisfactory despite its very narrow tread which gained it the nickname of "The FOUR-WHEELED MOTORCYCLE."

Customizing

for **SPEED** and

STABILITY

continued

The fin principle can be adapted to current popular cars in a very tasteful manner as shown by Marvin Lee's '57 Plymouth, below. Car had Dodge fins grafted onto Plymouth fenders. Comparison may be seen with stock model at the left. Car's design is very good.



This fin shape, low and long and slotted, seems to be the best for any road car. Over 200 mph, the high, thin, fin may be better. The present fin, low and long, provides for a much greater range of resultant wind angle. This is the angle obtained by adding the direction of the wind to the direction of travel and with a travel speed of 200 mph and up, the resultant wind will always be at a small angle, less than 10°, in any wind within reason. On a road car, however, even 30° is quite possible. For this reason more latitude is necessary in the road car.

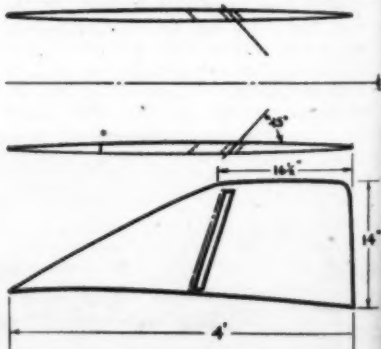
Herda streamliner goes the tall fin route. Car is excellently prepared and underwent many wind tunnel tests before being constructed.



A second important consideration is that the long, low fin fits the design of an automobile better.

For the record car, the high, thin fin is more effective per square foot of area and should show less drag than an equivalent long and low fin.

To determine if you have stability, drive the car in still air and then into a side wind. There should be no steering corrections required. You could run through a tunnel or a cut into a flat area to get this effect. The steering could be fixed by attaching a light stick to the wheel and to the window



ROD & CUSTOM

current
er as
below.
mouth
stock
good.

on is
design
in fin
oot of
than

bility,
n into
steer-
could
into a
steer-
a light
window

CUSTOM



Chrysler Dart with Ghia-built body was exhibited by author as the idea to strive for in last month's introductory instalment. Streamlining is evident and the fins are proportionately designed. Note the resemblance to Lee's custom Plymouth in photo at left. Rumors from Detroit hint that fins will be getting larger and start moving forward next year.

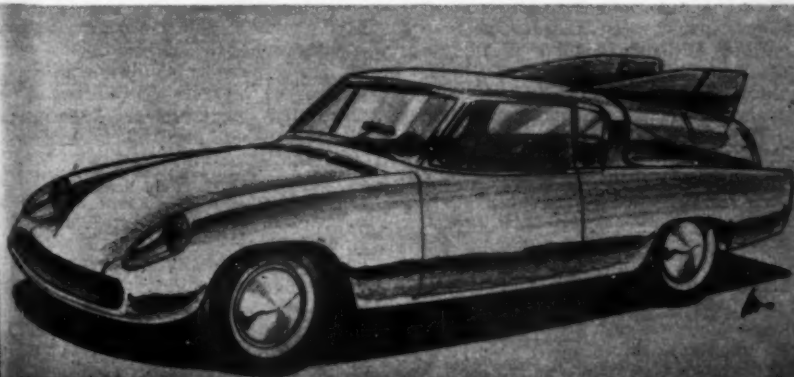
sill or you could lock the wheel with your knees. The point is there should be no correction necessary.

There is another method of testing using the steering wheel, you jerk it

and return it to zero, but the response behavior of a car is such that it's very hard to analyze. I could describe it in detail but it does get complex.

That about covers it — have fun. ●

The drawing below was made by Graphics Editor Lynn Wineland from photographs of a model '53 Studebaker Coupe which the author used in some exhaustive tests on stabilizing a common passenger automobile. The car's top was extended rearward to follow the K-farm principle as outlined in last month's article, and fins placed atop the roof to stabilize the car. Actually this location is better than the fenders because of the undisturbed flow. A drag coefficient of .23 was attained — about half that of the average car. The scale drawing at the left, below, shows the size of the fins used in the experiments and the slot locations and angles. Experiments on the part of the individuals will show the size and shape that is the most suitable for their particular make.



AUGUST, 1948

Heading for the salt flats this year?
Here's how...



BONNEVILLE

by JERRY HENDERSON, SAE

YOU can do more than dream about breaking speed records. The Bonneville Nationals coming up in late August are made to order for the backyard amateur to cover himself with glory and write his name in an official record book — without spending every dime he's got to do it. I know many, many fellows have told me how they would dearly love to break a speed record; many would even be willing to spend considerable time, sweat, and money to do it. But they seem to think that all the Bonneville and Daytona class records are way out of sight — no possibilities for a greenhorn to step in and take over.

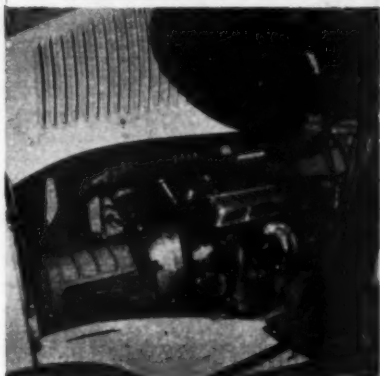
It just isn't true. I'm not going to say all these standing records would be a pushover, or that *any* of them would be. But whenever you have a large number of separate classes and subclasses in a competition event there are bound to be certain divisions that are less popular with the fellows — more or less neglected by the run-of-the-mill, you might say. Competition is not so rough here. Chances are the records standing in those classes did not require the ultimate in body and chassis design, horsepower per cubic inch, etc. Here's where you can make hay.

The big problem is picking the target. I'm thinking that the reason many

of you fellows aren't recognizing the possibilities is that it's difficult for you to mentally picture speed against cubic inches and body type. To say that C Gas Roadster did 146 mph on 302 cu.in. doesn't give any hint as to how much engineering went into the record car. But if we could say that the record speed required, say, 280 horsepower, or .93 hp per cu.in.... then we can start to plot! This is what I want to do here. I'm going to go down the list of current Bonneville class records (except sports car classes) and try to pick out a few that show some possibilities for being broken with a reasonable amount of ingenuity. Then I shall estimate the true horsepower output of these present record holders, using a mass of performance data on these cars collected in the past, so you can get some idea of what it will take in the engine compartment to beat the record. (In all cases I will quote the equivalent sea-level hp, which is what you'll be shooting for in your development. Actual output on the Salt Flats averages 20% lower due to the altitude and high temperatures. However, air drag on the car is also less, so top speed is only off 2 or 3% as compared with sea-level performance.)

And one other thing: In singling out certain records for attack I don't mean to imply in any way that the present record-holders have not done a good job. None of the records will be a pushover. But where you have certain

One solution for good chance at records is to drop a class, then supercharge. Drawback for '58 Nationals; no blowers over 305 cu. inches.



classes where the press of competition is not so great relative performance is bound to be a little lax. You can get by with just a little more air drag per pound of car weight, just a little less hp per cu.in., just a bit more frontal area than absolutely necessary. If we can build a car that matches the top cars in these departments we should be able to snag us a record. Here's the story...

The most logical classes to look at first are the "Gas" classes. These classes, for stock-height roadsters and fully-equipped coupe/sedans, were only set up a couple of years ago, in an

Typical of the out-of-ranch records is D Model Roadster. Top time stands at 204 mph, set back in '36. Car is Jacobson & Kneibler only.



going to
ould be
n would
a large
nd sub-
here are
that are
- more
a-of-the
on is not
records
not re-
chassis
nch, etc.
ay.
the tar-
on many
JST, 1958

GO KARTS

Michigan's
complete
Go Kart Sales
and Service.

PRECISION LOUVERING

304 South Magnolia St., Lansing, Michigan

Free!

HI-PERFORMANCE

Catalog & Souping Data

Double Your Car's Power!
Maximum Style

SAVE up to 1/2

Buy direct: Latest Power Kits, Super-Chargers, Dual Induction, Dual Carburetors, Exhausts, Cams, Heads, Manifolds, Engines, Adapters, Chimes, Customizing & Trim—FIBERGLASS, "Best New Items" Cat. FREE, or send \$2.00 to cover postage & we mail you big \$0.00 item catalog and "HOW-TO" Souping GUIDE. Plus credit, good on first order.

ALMQUIST

ALMQUIST ENGINEERING
MILFORD PA. DEPT. ECC-1

JACKET EMBLEMS



LADY LINE

See emblem on tag

1" Full Emblem — \$2.50

2" Full Emblem — \$3.00

3" Full Emblem — \$3.50

4" Full Emblem — \$4.00

5" Full Emblem — \$4.50

6" Full Emblem — \$5.00

7" Full Emblem — \$5.50

8" Full Emblem — \$6.00

9" Full Emblem — \$6.50

10" Full Emblem — \$7.00

11" Full Emblem — \$7.50

12" Full Emblem — \$8.00

13" Full Emblem — \$8.50

14" Full Emblem — \$9.00

15" Full Emblem — \$9.50

16" Full Emblem — \$10.00

17" Full Emblem — \$10.50

18" Full Emblem — \$11.00

19" Full Emblem — \$11.50

20" Full Emblem — \$12.00

21" Full Emblem — \$12.50

22" Full Emblem — \$13.00

23" Full Emblem — \$13.50

24" Full Emblem — \$14.00

25" Full Emblem — \$14.50

26" Full Emblem — \$15.00

27" Full Emblem — \$15.50

28" Full Emblem — \$16.00

29" Full Emblem — \$16.50

30" Full Emblem — \$17.00

31" Full Emblem — \$17.50

32" Full Emblem — \$18.00

33" Full Emblem — \$18.50

34" Full Emblem — \$19.00

35" Full Emblem — \$19.50

36" Full Emblem — \$20.00

37" Full Emblem — \$20.50

38" Full Emblem — \$21.00

39" Full Emblem — \$21.50

40" Full Emblem — \$22.00

41" Full Emblem — \$22.50

42" Full Emblem — \$23.00

43" Full Emblem — \$23.50

44" Full Emblem — \$24.00

45" Full Emblem — \$24.50

46" Full Emblem — \$25.00

47" Full Emblem — \$25.50

48" Full Emblem — \$26.00

49" Full Emblem — \$26.50

50" Full Emblem — \$27.00

51" Full Emblem — \$27.50

52" Full Emblem — \$28.00

53" Full Emblem — \$28.50

54" Full Emblem — \$29.00

55" Full Emblem — \$29.50

56" Full Emblem — \$30.00

57" Full Emblem — \$30.50

58" Full Emblem — \$31.00

59" Full Emblem — \$31.50

60" Full Emblem — \$32.00

PERSONAL NAME EMBLEMS

See emblem on tag

1" Full Emblem — \$2.50

2" Full Emblem — \$3.00

3" Full Emblem — \$3.50

4" Full Emblem — \$4.00

5" Full Emblem — \$4.50

6" Full Emblem — \$5.00

7" Full Emblem — \$5.50

8" Full Emblem — \$6.00

9" Full Emblem — \$6.50

10" Full Emblem — \$7.00

11" Full Emblem — \$7.50

12" Full Emblem — \$8.00

13" Full Emblem — \$8.50

14" Full Emblem — \$9.00

15" Full Emblem — \$9.50

16" Full Emblem — \$10.00

17" Full Emblem — \$10.50

18" Full Emblem — \$11.00

19" Full Emblem — \$11.50

20" Full Emblem — \$12.00

21" Full Emblem — \$12.50

22" Full Emblem — \$13.00

23" Full Emblem — \$13.50

24" Full Emblem — \$14.00

25" Full Emblem — \$14.50

26" Full Emblem — \$15.00

27" Full Emblem — \$15.50

28" Full Emblem — \$16.00

29" Full Emblem — \$16.50

30" Full Emblem — \$17.00

31" Full Emblem — \$17.50

32" Full Emblem — \$18.00

33" Full Emblem — \$18.50

34" Full Emblem — \$19.00

35" Full Emblem — \$19.50

36" Full Emblem — \$20.00

37" Full Emblem — \$20.50

38" Full Emblem — \$21.00

39" Full Emblem — \$21.50

40" Full Emblem — \$22.00

41" Full Emblem — \$22.50

42" Full Emblem — \$23.00

43" Full Emblem — \$23.50

44" Full Emblem — \$24.00

45" Full Emblem — \$24.50

46" Full Emblem — \$25.00

47" Full Emblem — \$25.50

48" Full Emblem — \$26.00

49" Full Emblem — \$26.50

50" Full Emblem — \$27.00

51" Full Emblem — \$27.50

52" Full Emblem — \$28.00

53" Full Emblem — \$28.50

54" Full Emblem — \$29.00

55" Full Emblem — \$29.50

56" Full Emblem — \$30.00

57" Full Emblem — \$30.50

58" Full Emblem — \$31.00

59" Full Emblem — \$31.50

60" Full Emblem — \$32.00

See Color — \$2.00

SEND NOW

—by NW complete

Illustrated catalog, emblem, and name — \$2.00

plus \$1.00 shipping and handling

plus \$1.00 tax (if applicable)

plus \$1.00 insurance (if applicable)

plus \$1.00 delivery (if applicable)

plus \$1.00 installation (if applicable)

plus \$1.00 maintenance (if applicable)

plus \$1.00 repair (if applicable)

plus \$1.00 replacement (if applicable)

plus \$1.00 upgrade (if applicable)

plus \$1.00 warranty (if applicable)

plus \$1.00 support (if applicable)

plus \$1.00 training (if applicable)

plus \$1.00 documentation (if applicable)

plus \$1.00 consultation (if applicable)

plus \$1.00 analysis (if applicable)

plus \$1.00 design (if applicable)

plus \$1.00 development (if applicable)

plus \$1.00 testing (if applicable)

plus \$1.00 deployment (if applicable)

plus \$1.00 operations (if applicable)

plus \$1.00 maintenance (if applicable)

plus \$1.00 support (if applicable)

plus \$1.00 training (if applicable)

plus \$1.00 documentation (if applicable)

plus \$1.00 consultation (if applicable)

plus \$1.00 analysis (if applicable)

plus \$1.00 design (if applicable)

plus \$1.00 development (if applicable)

plus \$1.00 testing (if applicable)

plus \$1.00 deployment (if applicable)

plus \$1.00 operations (if applicable)

plus \$1.00 maintenance (if applicable)

plus \$1.00 support (if applicable)

plus \$1.00 training (if applicable)

plus \$1.00 documentation (if applicable)

plus \$1.00 consultation (if applicable)

plus \$1.00 analysis (if applicable)

plus \$1.00 design (if applicable)

plus \$1.00 development (if applicable)

plus \$1.00 testing (if applicable)

plus \$1.00 deployment (if applicable)

plus \$1.00 operations (if applicable)

plus \$1.00 maintenance (if applicable)

plus \$1.00 support (if applicable)

plus \$1.00 training (if applicable)

plus \$1.00 documentation (if applicable)

plus \$1.00 consultation (if applicable)

plus \$1.00 analysis (if applicable)

plus \$1.00 design (if applicable)

plus \$1.00 development (if applicable)

plus \$1.00 testing (if applicable)

plus \$1.00 deployment (if applicable)

plus \$1.00 operations (if applicable)

plus \$1.00 maintenance (if applicable)

plus \$1.00 support (if applicable)

FIBERGLASS SPORTS CAR BODIES



Some distinctive models. Fit any chassis. Coupe — Roadster — 20" wide.

\$29.5

Send \$1.00 for this free literature and catalog. Please allow 4-6 weeks for delivery. Price, \$1.00 plus shipping and handling.

VICTRESS MFG. CO., INC.

FORD RESTORER'S SPECIAL

Firewall patent data plate, state year \$3.75
Engine enamel, original green \$1.50/pt.
Heat resistant manifold paint, gray \$1.50/pt.
Radiator shell lacing w/ rivets, state year \$1.75
Radiator shell grommets \$0.75 per set of 3
Muffler, '28-'31, orig. taper type \$12.50
Model "A" Ford Service Bulletins complete \$5.00
Front door mats '28-'31 \$4.50, '32-'34 \$5.50
Spring shackles, orig. type, front or rear \$3.50/set
Rear latches, '28-'31 \$1.00 ea., '32 \$1.25 ea.
Running board covering '28-'29 \$5.50, '30-'31 \$6.95
Ammeter, replacement type \$1.75
Spark plug leads, original brass \$0.50/set
Light wiring looms \$5.50/ea.
Radiator hose clamps authentic type \$0.15/ea.
Hub cap replacement type '28-'31 \$1.75/ea.
Door opener handles '28-'31 \$1.50 ea.
Window crank handles '28-'31, '32-'34 \$1.95 ea.
Replacement mirror (glass only) '28-'31 \$1.50

Write for free parts list
Include adequate postage — No C.O.D.

G. H. TINY SNELL

2405 W. OLIVE AVE., RCB • BURBANK, CALIF.

YOU CAN CRACK

effort to give the "man in the street" a chance at the record book. They have been very popular since—but more with amateurs than experts. The sub-classes based on piston displacement are different here than in the regular fuel classes. For the coupe/sedan division Class C is for anything up to 305 cu.in.; Class D goes from 306 to 371 cu.in. — and E is for 372 and up. Blowers are limited to 305 cu.in. Undoubtedly the easiest record in this bunch is the E mark of 141.6 mph, set by Dr. Nathan Ostich with a 400-cu.in. Chrysler 300-B. This took about 300 hp at the clutch

Jag-wagon A Coup. Coupe for 5 cylinder is holder of class record. Set during '57 trials, this stands at 125 mph — but improvement would not be too difficult to undertake.



on this big, heavy car. The chances for breaking the record are excellent. Since engine swaps are permissible, any big bore and stroker in a smaller, lighter body ought to do the job. You wouldn't even need 300 hp.

The Class D Coupe/Sedan record of 145.2 mph, set by Don Stevens in a '56 Golden Hawk, doesn't look too tough either. This 352-cu.in. engine put out about 275 honest horses with dual quads and a hot cam. An engine of around 360 cu.in., modified to develop a reasonable figure of .9 hp/cu.in., should be able to exceed 160 mph. We might as well forget Karol Miller's fabulous C Gas mark of 150.1 mph with the '56 Ford. I figure he had to have not less than \$10 hp to turn this with that body—and it takes some doing to get this with only 303 cu.in.

ROD & CUSTOM

BONNEVILLE

continued

You'd be biting off a big chunk* to tackle it. Incidentally, don't forget that Bonneville rules say supercharged engines move up one class. Thus a blown engine up to 305 cu.in. could attack Class D records.

In the Gas Roadster division Class C runs up to 305 cu.in., but D goes from 306 to 488 cu.in. (with no blowers over 305). The current records are 145.9 mph and 153.9 mph on C and D respectively. The C record took about 280 hp from an Ardun-Merc, and the D about 330 hp from a big Caddy, both engines being run in highboy A Ford roadsters. These are pretty fair outputs for pump gas, and neither record would be any pushover (remember, a roadster has considerably more air drag in relation to frontal area than a sedan).

Now let's get into those all-out classes—the regular SCTA competition classes that have been in effect at Bonneville for years. These are based on body type (which determines air drag) and sub-divided on piston displacement (which determines hp). Fuel choice is free, and superchargers move up one class. We have seven displacement divisions, though not all are open in each body class. The limits are:

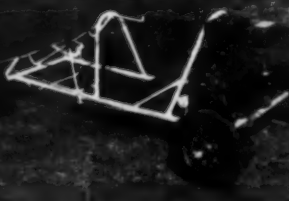
- Class H—0-45 cu.in.
 - Class O—46-91 cu.in.
 - Class A—92-183 cu.in.
 - Class B—184-260 cu.in.
 - Class C—261-305 cu.in.
 - Class D—306-488 cu.in.
 - Class E—489 cu.in. and over
- (No blowers on classes D and E)

Very briefly, the body divisions run about like this: The Roadster class requires stock body height and width, but fenders can be stripped. The Modified Roadster class requires a production body of stock height and width, but you can channel, belly-pan, streamline, etc. The Coupe/Sedan class is like the Roadster, requiring stock body height and width, but allowing a 6" frame drop. Competition Coupe/Sedan

continued on p. 60

You don't need a race track for the

COOL CART



just young ideas and a heavy foot!

You'll go for the remarkably safe and thoroughly road tested COOL CART, with its sturdy, Continental 4 cycle engine and pneumatic tires. Centrifugal clutch and positive spot brakes make operation easy for the kids and the all-welded tubular frame is rugged enough for dad. The COOL CART comes completely assembled, ready to run for only.....

\$164.50

Original price of \$149.50 effective the month of June only.

ORDER YOURS TODAY AND GET SOME FUN OUT OF LIFE!

Send 25% with C.O.D.'s or send full amount and save C.O.D. fee. Add 4% sales tax in California. Dealer inquiries invited.

REED ENGINEERING

2054 W. Slauson Ave., RC-8

Los Angeles 47, Calif.

AX. S-2525

WELD

BRAZE

CUT

SOLDER



\$14.75

WELDER

Complete with Twin Carbon Arc Torch and accessories... to handle all metal-craft work.

Acclaimed by thousands of stock, hot rod and customizing enthusiasts as the welder of 1001 uses. Easily operated from properly wired 110 volt AC or DC line. The ideal gift with a life-long use. ... Order today on 10-day money back guarantee.

Lithraure on larger equipment on request

FOUR-WAY WELDER COMPANY

1810 S. Federal St., Chicago 16, Illinois, Dept. F-89-H

more GO for the

Part II

By Roger Huntington, SAE

With inserted comments courtesy Editor Murray

So now to the big question: *Does it go?* Before I get into this I would like to emphasize that the standard 5:1 (60/12) sprocket ratio does not let the engine wind up tight enough to utilize its full potential performance. A car speed of 32 mph represents 5100 rpm — and that's about as fast as you're going to go with a single engine (and bigger tires make it worse).

Nearly a year ago, a perfectly stock Go-Kart, with a non-reworked engine, stock tires and the 5:1 sprocket ratio, turned 38 at the drag. Non-believers requested a re-run. Wham! The rod let go midway between the lights, yet the car coasted on through with a clock speed of slightly over 32!

On the other hand, the accompanying power curve for the chain saw engine with needle-bearing rod shows that peak power must be developed at somewhere around 5500 rpm. Furthermore, as is well known with any top-gear race car, you've got to gear to wind well *above* the power peak on the straightaways so you can pull good torque coming out of the turns.

So I'd say a usable rpm of around 6500 and a sprocket ratio around 7:1 would be just about right.

But back to Napoli and Knight and standard gearing. The most vivid evidence of the success of this hop-up experiment was seen by clocking a car around the outer circuit of the Michigan State University driver training course — which is pretty much flat out all the way for an expert driver. Using the same chassis and driver (Napoli in this case, as he weighs 40 lbs. less than Knight), the best *average* speed for the fully-stock engine was 26.9 mph — compared with a best figure of 30.4 mph with the modified mill. (Neither engine had a muffler.) That might not sound like a big increase... but let me remind you that horsepower required to move a car increases as *the cube of speed*. So this means our friends got about 45% more horsepower with little more than a grinder and file.

Wish we could do that with a Chevy or Ford! ●

YES!! WE HAVE IT



HALIBRAND V-8 CENTER SECTIONS

Ford V8... straddle mount, including one set of change gears, ring, and pinion gears. 3.78 ring and pinion furnished.

V-8 Center Section (standard axle)...\$188.00

For Truck Axle...\$182.50

Aluminum bolts and nuts for side plates (if needed)...75c ea.

BUY THE BEST AT MIDWEST

ALGON FUEL INJECTORS
BELOD
COGAS
ENGLISH
GRANT GUNES
HALIBRAND
H. C. PRODUCTS
HERMAN HEDGECOCK
KREMERMAN

JAMES HALLORY
MORRIS
OFFENHAGEN
SCHIEFER
WEISS
WILCAP
and many others

O.H.V. ENGINE ADAPTERS



Headquarters for all Adapters - CRAGAR - COOK - HALDEBRANDT and WILCAP. For complete details send 50c for our Catalog.

FUEL INJECTORS ALGON —



CHEV V8 Pump Drive \$325.00

Also available for: Chrys V8, Olds & Cad V8, Flat Head Ford, Ford V8 60

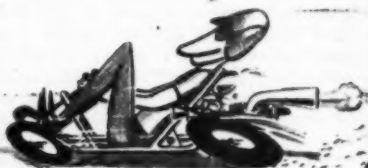
The Finest on the Market
FEATURES... Constant fuel pressure • Adjustable nozzles • Load compensation at all speeds • Switch from fuels to gas easily • Allows use of higher compression •

ORDER YOUR CATALOG TODAY

50c REFUNDABLE with first purchase

Midwest AUTO SPECIALTIES
DIRECT FACTORY DISTRIBUTORS
13907-R Miles Ave., Cleveland 5, Ohio
WYoming 1-5977 WYoming 1-6986

KART



ROTATION REVERSING ON THE #750

Speed addicts wishing to add a second engine to their single-engined rods will want to know how the direction of rotation can be reversed. This is necessary, for with engine mounting procedure, the car would try to run the wrong way with the standard engine fitted so as to power the right rear wheel. The West Bend #750 engine won't run in reverse simply by starting it up that way. It isn't like a lot of smaller model airplane engines! The primary reason is that a certain amount of degree advance must be given the timing, and if direction were reversed advance would become retard.

Two things are needed for the conversion. 1, reposition the flywheel and, 2, reposition the breaker cam on the crank. The flywheel must be removed for this, and a new keyway cut 62° from the original slot. (See photo.) Simply replace the wheel using the new slot for the key. While the flywheel is off, slide the cam off the crank. You'll note that the outer side of it is marked with an arrow showing rotation direction. The cam has to be replaced with the arrow toward the timing plate, and it also has to be repositioned 62° from the original location. Since this is a bit more critical than the flywheel, here's how to do the job: file the cast-in key from the cam. Slide the cam onto the crank. Turn the crank until the piston is 1/8" before top dead center. Holding the crank in that position, rotate the cam until the points begin breaking. Scribe a small mark on the cam in line with the keyway in the crank. Remove the cam and file a triangular keyway into the cam so that the inward end of the flywheel key will also lock the cam in position. Now reassemble the engine and ... GO!

CLUB JACKETS

SPECIFICALLY DESIGNED FOR CAR CLUBS

- ★ Many models and dozens of color combinations.
- ★ Styling, lettering, and emblems are finest in the nation.
- ★ Prices include all lettering and emblems. \$13.50 to \$25.00 in club lots of 6 or more.
- ★ No individual orders — 6 minimum.
- ★ Free Literature.

SEND 30c TODAY For complete catalog on Emblems, Jackets, Decals, Plaques, Novelties — including information on how to start your club and \$1.00 Credit Certificate and free Decal.



PLAQUES
JACKETS
T-SHIRTS
EMBLEMS
DECALS
FLAGS
TROPHIES
EMBROIDERY
CHENILLE
NOVELTIES

STYLIZED EMBLEM CO.

1072 Q No. Winton Pl.

YOU CAN CRACK BONNEVILLE continued from p. 57

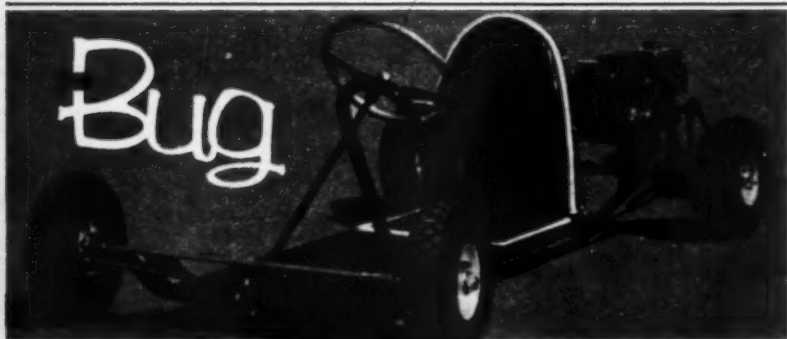
corresponds to Modified Roadster, so you can chop, channel, and streamline (not section) as long as you use a basic production body. The Lakester class is for non-production bodies that do not exceed 36" maximum width, and without wheel coverings. The Streamliners have non-production bodies with covered wheels.

In almost all the above classes the "easiest" records are in the lower displacement divisions; in the high displacement classes (B, C, D, E) competition has been rough and rugged for years, and the records have been boosted pretty much out of sight — at least in terms of the greenhorn. An example is the E Lakester record of 229.7 mph, set just last year by the Brissette & Eichenhofer belly tank. This car had a supercharged 331-cu.in. Chrysler engine (which put it in Class E) that developed over 700 hp! That's meat for the big boys, not the beginner.

On the other hand, there are great

possibilities in some of the lower displacement classes. In Class H in both the Lakester and Streamliner divisions, for instance, neither record engine developed over 35 or 40 hp. Both cars here were British Cooper race cars with 41-cu.in. Norton competition motorcycle engines. The Lakester mark is 92.8 mph and the Streamliner mark of 118.3 was set with a special factory car prepared for world record attempts. These cars did not have impossibly-low drag per pound of weight, nor was the hp per cu.in. fantastic. I'm thinking that a 44-cu.in. Crosley engine, hopped up with all the goodies plus about 25% nitro, could put out as much as 60 hp at 7000 rpm for a few minutes — long enough to raise both these Class H records by 10 or 15 mph!

The Class O Lakester and Streamliner records, for engines up to 91 cu.in., look even easier. The Lakester mark is only 111.6 mph, set in 1953 by George Barber in a little belly tank



engineered for fun-time pleasure

The Bug's outstanding features give you the most safety — most fun at a low, low cost. The safety-lowered frame is COMPLETELY WELDED . . . just tighten a few bolts and you're off and running. Other extra features include an all-new Clinton A400 engine, steering wheel, three cross-members for added strength, removable axle and spindles, auto type steering, narrow front hoop to fit the entire family, foot-operated brake and rod-type throttle linkage. These are just a few of the extra features you get when you've got the bug.

BUG SALES San Diego
1302 Kettner Blvd., San Diego 1, California

\$143.95

unassembled
FOB factory, Calif.
residents add 4% tax

Bug engineering

DEALER INQUIRIES INVITED

BOX 91, DEPT. RC-8, WEST COVINA, CALIF.

For further information, please send self-addressed stamped envelope for free color brochure.

car. He used a Ford V8-60 engine, sleeved and de-stroked from the original 136 cu.in. down to 88 inches. It developed between 60 and 65 hp. The O Streamliner record of 136.9 mph was set by Bill Burke in 1952 with a tiny 740-pound fiberglass streamliner powered by a 61-cu.in. Harley-Davidson motorcycle engine. Output here was about 50 hp at 5500 rpm. The possibilities in this class just scream at you. Certainly the V8-60 is good for more than 60 hp when brought below 91 cu.in.; an output of 80 hp at 6500 should be readily obtainable on a hot fuel. Or there are several domestic motorcycle engines that can be bought used at low prices, and that have been developed to put out more than 1 hp/cu.in. for track racing on alkyl. The big Harley 74 twin, rated 50 hp at 5500 rpm stock, should be good for 80 hp when hopped to the gills. Don't forget the possibility of a big outboard engine; Mercury now has a 66-cu.in. 6-cylinder that develops 70 hp at 5800 rpm, and weighs only 180 lbs. This could be souped to 80 hp. And, of course, don't forget the possibility of supercharging the Crosley engine to get in Class O. One of the small positive-displacement blowers on the market — like the American Judson or British Shorrock or Marshall-Nordec — could supply 15 or 20 lbs./sq.in. boost pressure on this small engine, and practically assure 80 or 90 hp on alkyl. Who'll be first to try it?

Up in Class A (92-183 cu.in.) things get a little rougher. The Lakester record here of 162.4 mph was set last summer by Baldwin, Summerfield, and Williams with a sleeved Ford B block and old Riley 4-port rocker arm head. To go this fast with that belly tank they had would take close to 220 hp.

PROVEN IN OUR SHOP IN YEARS. • the crazy painters •

BARON ROTH

50 years experience painting

ATLANTIC Southgate Cal

AUGUST, 1958

AUGUST 13-14-15-16-17
FROM 10:00 P.M.

ROD & CUSTOM WORLD'S FAIR

THE 3rd ANNUAL INDUSTRIAL ARTS BUILDING EASTERN STATES EXPOSITION
W. SPRINGFIELD, MASS.

5 MILE RACES

THE LARGEST AND MOST COMPREHENSIVE SHOWING OF 300 selected automotive masterpieces ever assembled in one show. 180,000 square feet of record hot rods of every class — fabulous dream customs from all over the nation in a gigantic display. Also exhibits of motor parts, accessories, equipment, — everything for the rodder and customizer.

PLUS...and Custom Trainers! An exciting program of feature movies in sound a color. This is the show you have dreamed of.....**RIGHT FOR VACATION NOW!**

Write or phone for information on car entry, commercial space, etc. address inquiries to: AUTORAMA CORPORATION - 3 MEADOW PARK DRIVE, MILFORD, CONN. - TRINITY 4-2718

ARIN CEE

BY
MILLAR

LOOKS LIKE ARIN'S
CHOPPIN' HIS DEUCE...
LETS SNEAK IN...



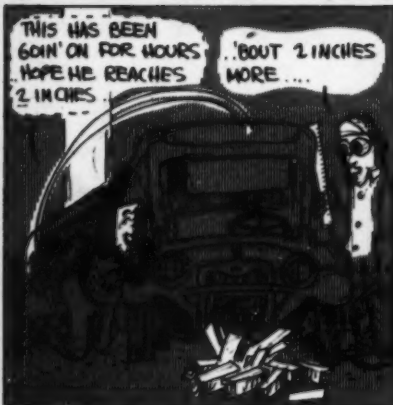
LETS TAKE OFF HIS
TOP AND PUT THIS
STOCKER ON...

HUMMM... COULD
STAND A COUPLA
MORE INCHES...



THIS HAS BEEN
60IN' ON FOR HOURS...
HOPE HE REACHES
2 INCHES

..BOUT 2 INCHES
MORE...



SAHH... I'VE GOT AN
IDEA... HAND ME
THAT OLD TOP IN
THE CORNER...

THIS IS THE WAY
I CHOP-A-TOP...
CHOP-A-TOP...
CHOP-A-TOP...
THIS IS THE...



THATS IT! KEEP EXCHANGIN'
THEM AND LETS SEE WHA
HAPPENS

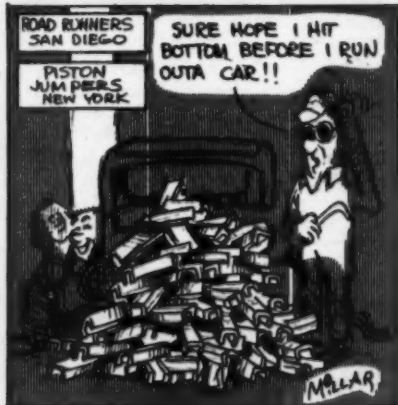
WAY I CHOP-A-
TOP... CHOP-A-
TOP... CHOP-A-
TOP...



ROAD RUNNERS
SAN DIEGO

PISTON
JUMPERS
NEW YORK

SURE HOPE I HIT
BOTTOM BEFORE I RUN
OUTA CAR!!



MILLAR

YOU CAN CRACK BONNEVILLE

continued from p. 61

Better forget it; they tipped the can too far to be easily overtaken by the greenhorn! But look at the A Streamliner record. It's only 162.9 mph, barely over the A Lakester mark. This was set way back in 1950 by the famous Xydias-Batchelor streamliner, using a V8-60 engine. The performance suggests not over 120 or 125 hp was available. Surely we can do better than this with 183 cu.in. and nitro to work with. In fact, if you were to transplant the above B.S.W. A Lakester Ford engine (220 hp) in the X-B car, it should go at least 190 mph! There's work to be done here.

Class A competition is also open in the Competition Coupe/Sedan and Modified Roadster divisions. Just last year Bill Milliken set a new A Comp. Coupe record of 125.6 mph with a weird-looking needle-nosed thingie running a 5-cylinder Jaguar engine! He removed No. 6 piston and rod to bring the displacement down from 210 to 175 cu.in., and bob-weighted the crankpin for balance. Worked fine — and put out about 140 hp. But we can do better. What would 200 hp have done for the Milliken thingie?... just about 140 mph! At first glance it would seem that Ak Miller's old A Modified Roadster record of 137.6 mph, set in 1952, would offer a target. But a little slide rule slipping shows that his nitro-loaded bore and stroked V8-60 must have been kicking out over 180 horses to turn that speed pulling the high drag of the roadster.

And so it goes. In the larger displacement classes, as mentioned, there aren't too many possibilities for the beginner. Power outputs up there are generally around 1 hp/cu.in. or above, which is hard to beat even with a little nitro. Possibly the best idea would be to approach a record by dropping displacement down into the next lower class and then supercharging. Not too many of the records are presently held by blown cars — and it's probably as easy to get 1½ or 2 hp/cu.in. with a blower as to get 1 hp/cu.in. without it.

You take it from there. ●

ROD & CUSTOM • AUGUST, 1958

MORE FOR LESS

Engine Swapping



Replacing your old engine with a late model V-8 will give your car more performance for less money. "ENGINE SWAPPING" is a book that shows the easiest installations. Tells just how to do it. A practical book answering hundreds of questions. Saves time and money. Order today.

\$3.00 ppd.

LOCKHART, INC., SUITE 10
3607 Magnolia Blvd., Burbank 26, Calif.

Rush me "Engine Swapping" postpaid. Enclosed is \$3 in cash, money order or check.

NAME.....

ADDRESS.....

CITY.....STATE.....

(please print)

Ingels-Borelli



Caretta

"SUPER LITTLE CAR"

Complete do-it-yourself plans — \$2.00
including material and price list

Caretta ready to run \$19500

F.O.B. LOS ANGELES

Ingels-Borelli

2100 ECHO PARK AVE., LOS ANGELES 26, CALIF.

J. C. Whitney & Co., Leads Them All! Your Satisfaction Guaranteed or Money Back

[illegible][illegible]

LOWERING KIT FOR 1988 CHEVROLET



Save 100 lbs. weight
Save 1000 dollars
Save 1000 dollars

Call 1-800-888-8888

Color Dye for Lamp Bulbs



Color Dye for Lamp Bulbs
Save 100 dollars
Save 100 dollars

Handy Specialty



Handy Specialty
Save 100 dollars
Save 100 dollars

PNH STRIPING



PNH STRIPING
Save 100 dollars
Save 100 dollars

Color Dye for Lamp Bulbs



Color Dye for Lamp Bulbs
Save 100 dollars
Save 100 dollars

Handy Specialty



Handy Specialty
Save 100 dollars
Save 100 dollars

PNH STRIPING



PNH STRIPING
Save 100 dollars
Save 100 dollars

Color Dye for Lamp Bulbs



Color Dye for Lamp Bulbs
Save 100 dollars
Save 100 dollars

Handy Specialty




Handy Specialty
Save 100 dollars
Save 100 dollars

[illegible][illegible][illegible]

PHONE-A-LIFE

A HOME SAFETY PHONE



Model No. 114
 Features:
 • 100% U.S. Made
 • 100% U.S. Parts
 • 100% U.S. Assembly
 • 100% U.S. Quality Control
 • 100% U.S. Service
 • 100% U.S. Satisfaction

4.50

Model No. 114
 Features:
 • 100% U.S. Made
 • 100% U.S. Parts
 • 100% U.S. Assembly
 • 100% U.S. Quality Control
 • 100% U.S. Service
 • 100% U.S. Satisfaction

PHONE-A-LIFE

A HOME SAFETY PHONE




Model No. 114
 Features:
 • 100% U.S. Made
 • 100% U.S. Parts
 • 100% U.S. Assembly
 • 100% U.S. Quality Control
 • 100% U.S. Service
 • 100% U.S. Satisfaction

4.50

Model No. 114
 Features:
 • 100% U.S. Made
 • 100% U.S. Parts
 • 100% U.S. Assembly
 • 100% U.S. Quality Control
 • 100% U.S. Service
 • 100% U.S. Satisfaction

PHONE-A-LIFE

A HOME SAFETY PHONE



Model No. 114
 Features:
 • 100% U.S. Made
 • 100% U.S. Parts
 • 100% U.S. Assembly
 • 100% U.S. Quality Control
 • 100% U.S. Service
 • 100% U.S. Satisfaction

4.50

Model No. 114
 Features:
 • 100% U.S. Made
 • 100% U.S. Parts
 • 100% U.S. Assembly
 • 100% U.S. Quality Control
 • 100% U.S. Service
 • 100% U.S. Satisfaction

[illegible][illegible]

FRENCH TADPOLE

 HOT AND THUNDER
 ONE OF SEVERAL
 OF THE
 6.18 ONLY

CONVEYOR CARCOAT

 The
 1.11 ONLY

CONVEYOR CARCOAT

 The
 1.11 ONLY

SMAG-ON
SPRAYS
FOR
WOOD
FINISHES
\$3.95

SPRAY ALUMINUM
WHEEL
\$1.95

PLASTIC STEEL
\$3.75





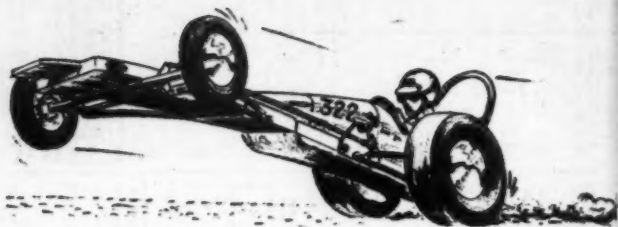
Applied to any wood surface, this spray will protect and finish. It is easy to use and gives a smooth, even finish. It is available in many colors and finishes. It is the best way to protect and finish your wood.

Applied to any metal surface, this spray will protect and finish. It is easy to use and gives a smooth, even finish. It is available in many colors and finishes. It is the best way to protect and finish your metal.

Applied to any plastic surface, this spray will protect and finish. It is easy to use and gives a smooth, even finish. It is available in many colors and finishes. It is the best way to protect and finish your plastic.

JC WHITNEY & CO
Chicago 16 Ill
1917 Archer Ave., U28
near Ohio (first entry)

65



WITHOUT DOUBT the most important development in the field of drag racing in the last six months has been the phenomenal rise of the *supercharger* in the gas divisions. Big-time builders are flocking over to pressure induction by the dozens. A quick look at the record book will show why. Just last September Buddy Sampson won the NHRA Nationals with a speed of 141.5 mph, using a 461-cu. in. unblown Olds engine in a 1300-pound slingshot. Now, just a few weeks ago, Bill Crossley went 161.7 mph on gas with a 331-cu. in. supercharged Chrysler in a 1600-pound dragster.

There's a lesson to be learned here. I have studied these performances of gas-burning dragsters in some detail, and have come up with a few conclusions. Most important, there appears to be a sharp limit on the air-breathing ability of the port and valve systems on our basic passenger car engines, even when highly modified. Consider: A small engine of less than 300 cu. in., like the Chev, can develop well over 1 hp per cu. in. on gas when set up right. The 283 Chev in the "Dragliner" appears to put out about 310 hp at 6200 rpm. As the engine gets bigger the specific output goes down. The "Money Olds" that won the NHRA Nationals developed about 360 hp at 5000 rpm with its 461 inches. Some big 450-cu. in. unblown Chryslers have shown around 400 hp. But it certainly looks from here like present valve and port layouts could not pass enough air to generate more than maybe 450 hp — *regardless of the cubic inches pulling on them!* There seems to be a virtual "breathing barrier" on unblown automotive-engine dragsters at somewhere around 146 mph.

So the obvious answer — (this side of nitro, anyway) — was simply to put *pressure* on the fuel-air mixture in the manifold. This is the easiest way to increase the amount of air that will flow through a given orifice (in this case the valve). It has worked like a charm. Mickey Brown soon exceeded 150 mph with a blown Olds, and now Crossley has broken 160 with his Chrysler. Horses? I am certain that the Crossley car must put out very close to 600 of 'em — or about 1.8 hp/cu. in. It has taken some tall doin' to get that kind of stuff out of pump gas with an American passenger car engine. And all of it, of course, has been done with the basic Roots-type positive-displacement supercharger (such as the GMC diesel truck blowers). Any supercharger man will tell you that this type is poorly adapted to the job. No telling what we might do in the future with more efficient types of compression!

I still can't say that a good blown gas engine is any match for a good unblown nitro engine... but just give those gas boys another year, and then see! ●

ORDER BY MAIL

HONEST NEW ITEMS

ORDER BY MAIL

KROME TAPE

The Self Sticking Mylar Tape for Thousands of Customizing Applications. Will adhere to any clean smooth surface—Gleaming Chrome Finish may be tinted with Kolor Krome Paint.



No. 5350 2 inches wide Foot .20 10 Ft. Roll \$1.80
No. 5352 3 inches wide Foot .25 10 Ft. Roll 2.25
No. 5358 18 inches wide Foot 1.95 10 Ft. Roll 17.50

LOWERING BLOCKS

For All Cars with 2 Leaf Springs on Rear. Complete with U-Bolts.

Kit to Lower Rear

Bumper 2" — \$3.95

Kit to Lower Rear 3"

\$4.50

Kit to Lower Rear 4"

\$4.95

State Year and Model Car



HONEST No. 51

HOLLYWOOD WOLF WHISTLE



Works on

Engine Vacuum

\$2.95 Postpaid

HONEST No. 15

DELUXE CHROME GENERATOR COVERS



For all GM-Chrys

products

Ford Products

2.25 Postpaid

HONEST No. 23



GIANT CAR DICE

Red and White
Blue and White
Green and White
Black and White

\$1.25 pr. Postpaid

HONEST No. 1



HEAT RESISTANT ENGINE ENAMEL

RED - BLUE - GREEN

1/2 Pint

\$1.00 Postpaid

HONEST No. 12



PINSTRIPING

12 Separate Designs

Per Set

Colors: Red-Green-Blue-

Gold-White-Black

Each set of 12 Designs

only \$1.00 postpaid

HONEST No. 39

NEW FIESTA TYPE CHROME WHEEL COVERS WITH CHECK BACKGROUND

14" or 15"

For all cars — Replaces original factory type.



3 BAR SPINNER

Heavy

Con-

struction.

Space for

Weights

Set of 4

\$28.95

HONEST No. 40

Set of 2 \$14.50

HONEST No. 41

(State size of Wheel)



KOLOR KROME

The most sensational customizing product in years. Featured in recent issues of Rod and Custom and Custom Cars Magazines — Formulated by George Barris — Mr. Custom Car himself — Transparent Coloring for Chrome—the (mirror like) reflection of chrome shows through—

4 Dazzling Colors in 16 oz. Spray Can

HONEST's No. KK-1 Pagan Gold
KK-2 Candy Apple Red
KK-3 Oriental Blue
KK-4 Parisian Green

16 oz. Can \$2.79 Post Paid

For Chrome—Stainless Steel—Polished Aluminum

GO MAN GO EMBLEM

Fits where Buick bomb-right and 57 Ford hood emblem fits—Also adapts to most any car.

HONEST

No. 65

Each

\$1.95

Postpaid

Chrome Knobs
FOR THAT CUSTOM LOOK

CK-111 CK-112

REPLACES DASH KNOBS

ON MOST CARS

40c Each Postpaid



SOM-RAY SPUN ALUMINUM

WHEEL DISCS

HEAVY GAUGE

For Draggins'

For the Street

New Low Price,

\$2.95 Each 14" 15" 16"

STATE TIRE SIZE

HONEST No. 49

Send 25c for new 1958
Surprise Money Saver
Catalog—then next issue
FREE

SEND 25% DEPOSIT ON C. O. D. — SEND
FULL AMOUNT ON ITEMS MARKED PREPAID
NO C.O.D.s FOR LESS THAN \$5.00

My car is a _____ Year _____

Name _____

Address _____

City _____ State _____

Quantity	Part No.	Description	Price

HONEST CHARLEY SPEED SHOP

Box RC 1904
Chattanooga Tenn.

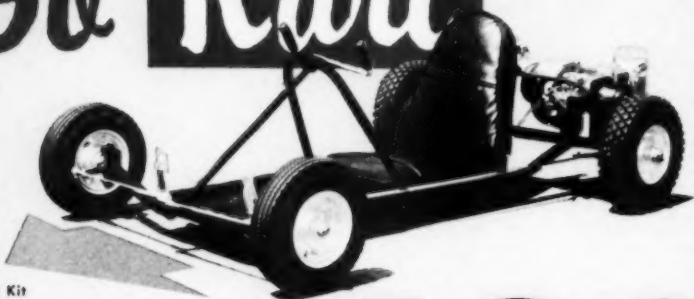
field
enal
s are
k at
pson
461-
just
1-cu.

per-
come
be a
sys-
ified.
can
The
up at
down.
about
blown
from
h air
nches
r" on
mph.
mply
is the
ugh a
harm.
d now
a that
ut 1.8
ff out
of it,
place-
Any
ted to
cient

ch for
mother

, 1958

Go Kart



Kart Kit

Still only
\$129⁵⁰

4000

Upholstery (\$25.) and Chrome Accessories (engine shroud, gas tank and muffler \$6. each exchange) optional extras

Developed after experience gained from over half a thousand cars used in all kinds of fun events. New features improve handling, comfort, and overall appearance. The Kart Kit contains highest quality parts—yet the price remains the same! Chrome-moly tubing frame with formed members, ball-bearing wheels, pneumatic tires, brand new two-stroke engine and all parts necessary to build your own stormer. Concise instructions enable you to complete your Go Kart in several hours, including welding. Send 25c to cover handling for a colorful brochure describing the Go Kart 400. To help meet the demand, dealerships are springing up across the nation. To see and ride this sensational new fun machine, see your nearest dealer, below. New dealer inquiries are invited.

CALIFORNIA

Bakersfield
Bell
Castroville

Alfred Spear
Bell Auto Parts
Frankie & Johnny's
Go Kart Sales & Ser.
Covina Muffler Service
Vernon Ropp
Karts & Parts
Richard Conners
Will Galt, Jr.
Go Kart Mfg. Co.
Milne Bros.
Delano Muffler Service
Joe Carnes
Geo. Moore
Whittier Muffler Co.

2503 "O" Street
3633 E. Gage Ave.

900 S. Citrus
11122 Bettee
4630 La Canada Blvd.
1450 W. Ave. I
25719 Ave. 13
152 E. Huntington Dr.
1051 E. Colorado
4308 Market St.
8459 Foothill Blvd.
P.O. Box 1101
13026 Whittier Blvd.

COLORADO

Denver

Armstrong Carter Co.

465 Santa Fe Dr.

ILLINOIS

Chicago
Wilmette

So. Shore Buick, Inc.
8 & G 12th St.
Auto Repair

1441 E. 79th St.
1215 Washington Court

INDIANA

South Bend

Charles Spurgeon

59609 Locust Rd.

IOWA

Hesperia

A. H. Van Zee

Sioux Co. Box 79

LOUISIANA

New Orleans

James H. Orange

4761 Press Drive

MICHIGAN

Lansing

Precision Louvering

504 E. Magnolia

MISSOURI

Richmond Mts.

Spencer Motors, Inc.

2234 Big Bend

NEW JERSEY

New Brunswick

Calif. Speed & Sport

298 Jersey Ave.

NEW YORK

Long Island

Forean Kustom
Speed Shop

271 E. Jerico T'Pike

NORTH CAROLINA

Raleigh

Geo. Wynn

2524 So. Wilmington St.

OHIO

Trotwood

A & M Automotive

13 Oak Street

OREGON

Medford

Lee Hobbs

1018 W. Main St.

TEXAS

Brownfield

Lamesa

Odesa

Daniels' Hobby House
Skinny White Texaco
Howard W. Reed
8th St. Auto Sales
Kenneth Medlock
C. G. Ward, Commander

1404 E. Cardwell
511 N. Fourth St.
729 E. 8th St.

185 S.E. Ave. C
Amer. Legion Post 204

WASHINGTON

Seattle

No. Side Auto Trim

11024 12th No. East

Go Kart MFG. CO. • RC-8 • 152 E. Huntington Drive • Monrovia, Calif.

oud,
tras

ents.
hest
pers,
y to
urs,
400.
this
ted.

le
on St.

1 304
est

, Calif.